International Conference on Advancements in Interdisciplinary Research

Organized by

Dr. Bhimrao Ambedkar University,
Agra India

and

Forum for Interdisciplinary Research
in Mathematical Sciences

October 29-31, 2021

Editors
Prof. (Dr.) Alok Aggrawal
Prof. (Dr.) B. P. Chamola
Prof.(Dr.) Munish Sabbharwal
Prof. (Dr.) Narendra Kumar
Prof. (Dr.) Nevine Makram Labib
Prof. (Dr.) Satyabhan Kulshrestha
Prof. (Dr.) Sanjeev Kumar

Message from Chief Guest

Prof. (Dr.) Valentina Emilia Balas

I am most grateful to God, the most gracious and most merciful, for His blessings in giving us this precious opportunity to gather at this memorable academic event. The **2ⁿᵈ International Conference on Advancements in Interdisciplinary Research" (ICAIR 2021)** takes an in-depth look at the many issues raised by academicians from various domains in science, technology and management, the obstacles and opportunities created by the new products, services and applications. This conference is a step towards achieving our vision in becoming a world-class academic and research platform in order to inspire young researchers to work in the new domains in which science and technology become a gift for mankind.

Research in science and technology is exciting as it comprise of traditional research areas in computer science such as blockchain management, crypto currency, artificial intelligence, IoT, data science, mathematical modelling, general relativity, robotics, electronics and communications related various domains, compiler, operating system, network, and software engineering. This conference will be a good starting point for research and international universities to interchange knowledge and skills in the area of various domains. We are looking forward to find new solutions in this area and forecast future trends in order to realize India's aspiration and to contribute to global needs.

It is a great pleasure to welcome all delegates and participants to this conference, coming from near and afar. A warm "welcome" I bid to all of you.

I would like to congratulate **Dr. Bhimrao Ambedkar University, Agra India** and **Forum for Interdisciplinary Research in Mathematical Sciences, Jaipur India** for their commitment and superb drive in organizing this conference. I am very certain that this occasion will be able to provide a platform towards strengthening our relationships in knowledge sharing while at the same time provide the necessary thrust in joint research collaborations and product

commercialization within the research society. It is my aspiration that this conference will be a foundation for the growth of new ideas towards a better tomorrow.

Last but not least, I would also like to thank all the conference sponsors. With your continued support and interest in us, I am sure that the quest of making Department of Mathematics, Dr. Bhimrao Ambedkar University Agra, a top class university is not going to be impossible to achieve.

Thank you.

Dr. Sanjay Bhayani,
Saurashtra University Rajkot, Gujarat, India

Message from Chief Advisor
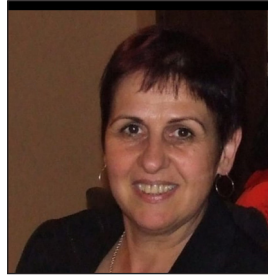
Prof. (Dr.) Valentina Emilia Balas

I am delighted that Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra and Forum for Interdisciplinary Research in Mathematical Sciences organizing an International Conference on Advancements in Interdisciplinary Research held during October 29-30, 2021

We at FIRMS aspire very strongly to expand our research and innovation horizon, especially in the domain areas of science and technology. System Designs is the driving force behind the IT and telecommunication industry and is helping to change the quality of life of mankind. That this conference is addressing some of the challenges and solutions in this vast field is heartening. I understand that the conference is filled with lots of expert key note speeches, tutorials, hundreds of research paper presentations and invited talks. This will definitely go a long way in enriching the knowledge of the participants in general and member faculty from Dr. Bhimrao Ambedkar University Agra and FIRMS India in particular, especially those in the field of science technology and management. I am extremely happy that many international experts and delegates are attending the conference to present their papers and also deliver key notes and invited talks.

Such a huge conference cannot be organized without the whole-hearted commitment and involvement of many people, be it faculty or students or sponsors. I admire their commitment and congratulate them on the success of the conference. I also profusely thank all the sponsors for their effort to encourage academic research by way of liberal sponsorships. We at Dr. Bhimrao Ambedkar University, Agra and Forum for Interdisciplinary Research in Mathematical Sciences hope to further sharpen our research skills by organizing more of such international conferences in future.

I sincerely hope that this conference (ICAIR2021) will facilitate the establishment of international joint research programs and become a Scientific platform for the exchange of research ideas. I wish the conference a grand success.

Prof. (Dr.) Valentina Emilia Balas
Aurel Vlaicu University of Arad, Romania

Message from President FIRMS India

Prof. (Dr.) Jagdish Prasad

It is with great pleasure that I extend a warm welcome to International and local experts, academic researchers and scholars in Dr. Bhimrao Ambedkar University Agra, India and Forum for Interdisciplinary Research in Mathematical Sciences. India. Who are taking part in International Conference on Advancements in Interdisciplinary Research (ICAIR 2021) with various domains in science, technology and management. I am truly proud that the Department of Mathematics has managed to organize such an important conference in the domain of several disciplines. With such diverse and relatively large participation, I am sure that this conference will achieve its intent - to serve as an effective platform for us, the research community to learn, share and supplement each other's research, while keeping abreast of the latest trends in this arena. We invite you to use this Conference to create new, or to strengthen existing, partnerships between the scientific community, publishers, policy makers and academic and non-academic society.

Mathematical Computing, IoT, Data Science, Artificial Intelligence and its applications are very widely used, with billions sold every year. Millions of hardware, software engineers and academic researchers work in these domains. The development of artificial intelligence and scientific computing as a research field has helped to develop many software and hardware's to help human being in this globe. One question often asked about this field is how it differs from traditional computer systems? Are we applying the same principles to smaller systems? I believe that mathematical and scientific computing, though it uses many techniques from computer science and engineering, poses some unique challenges.

As pressure continues on designers to achieve higher levels of device integration in Embedded chips (SOCs) while reducing cost, size, complexity and power consumption, the need to devise architecture-centric efficient algorithms has become very crucial. This platform will come some solution for the design challenges and the role of architecture-centric algorithms and design methodologies that are capable of achieving the delicate balance of performance, power

consumption, and cost in embedded systems. The Program Committee has packed the conference with a host of expert key note speeches, pre-conference tutorials, Invited talks and around 360 research paper presentations in various sessions. I congratulate them for this astronomical effort.

A conference of this magnitude would not have been possible without the dedication and support of each and every one of the committee chairs, organizing members, industry colleagues, sponsors, academic institutes, and all supporting organizations. We sincerely hope that the conference in the city of Agra, known for its rich cultural heritage becomes a grand success. I whole-heartedly welcome you all. I would like to wish you a fruitful conference.

Thank you.

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Prof. (Dr.) Jagdish Prasad
Amity University, Jaipur

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Message From Conference Chair

Prof. Dr. Sanjeev Kumar

I am most grateful to God for his blessings on us in organizing the International Conference on Advancements in Interdisciplinary Research 2021 (ICAIR2021). This conference is indeed very meaningful to us all in the Department of Mathematics, Dr. Bhimrao Ambedkar University Agra and FIRMS India, as a whole. The main purpose of this conference is to share research outcomes among the researchers and academic staff members of the various Universities, Research Institutions as well as members of the industry. Welcome all of you, the research community to this humble yet pleasant conference.

I am very pleased that after two years since establishment, FIRMS India has successfully conducted various conferences, and has received co-operation and support from members of the industry, as well as the research community in the country and abroad. Walking down memory lane, the last International Conference in science technology and management (ICSTM 2021) was organized in august this year.

The theme for this year's conference, which is "Interdisciplinary Research", aims to examine in detail or put a measure on the level of quality research and current trends in the world of science and technology, especially in India. I sincerely believe that through various topics and many tracks that are held in this conference, researchers could effectively explore various possibilities in realizing their interest in their specific domain .

I would also like to stress that in this era of rapid technological advancement, we as researchers will not survive without working in a community, supplementing and supporting each other's work. I believe that this conference would serve as an effective platform for academic staff, researchers and engineers to learn, network, share and to create an environment for intellectual exchanges which would benefit all parties greatly. As a consequence, inputs from our peers would greatly help improve the standard and quality of the projects one is working on.

Lastly, may I ask that we work hand-in-hand in our effort to further enhance our research and development (R&D) arena which this country and the world needs. With your continued

support and interest in us, I am sure that the quest of making this platform a nationally-reputable university is not going to be impossible to achieve.

Before I end, I would like to thank our sponsors, and the organizing committee of this event for their superb drive in making this conference a success. Thank you.

Prof. Dr. Sanjeev Kumar
Department of Mathematics
Dr. Bhimrao Ambedkar University, Agra
India
Conference General Chair

Message from the Program Coordinator

Dr. Anirudh Pradhan　　　　**Dr. Narendra Kumar**

Welcome to the second International Conference on Advancements in Interdisciplinary Research 2021 being held during October 29-31, 2021 organized by Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra, India. This conference is a forum for academic researchers and designers to present and discuss recent developments in the various domains of science, technology and management. There is a tremendous amount of innovative trends and new applications in this area in the recent past. Artificial Intelligence has applications in almost all research domains presently like scientific computing, mathematical modelling, soft computing, Communication systems, Wireless sensor networks, Bio-medical systems, Vision systems, Mobile systems to name a few. The conference is attracting a large number of academic researchers and engineers representing academia, government and industry from across the globe. The three day program will consist of Pre-conference tutorials, Key note speeches, Invited talks, Regular paper sessions. The main focus will be on challenges and opportunities in this niche area.

We received a total of 360 paper submissions. After an initial scrutiny and withdrawals, 234 papers were reviewed. We had a challenging task ahead of us of getting a rigorous review process accomplished. Fortunately, several international and national experts cooperated and completed the review process. As usual most of the reviews trickled in during the last week and we had a tough time keeping our schedules of informing the authors. We accepted a total of 2000 papers and included many invited papers. I am happy to note that many papers went through three or four reviews and a few two reviews. Where there are only two reviews, the papers were accepted only when there is agreement between the two reviewers otherwise it was sent for a third review. Overall it is a very challenging and satisfying exercise and we want to thank everyone who served as a reviewer or as a TPC member. Thus we can say we have an outstanding technical program for this conference. It is unfortunate that we are unable to include several other good

Papers in the program due to the limited number of sessions that could be accommodated in three days.

We have key note speeches and invited talks for this conference from eminent speakers from industry and academia. Summary of the event is given here:

PROGRAM DETAILS

2nd International Conference on Advancements in
Interdisciplinary Research (ICAIR-2021)
October 29 - 31, 2021
Organized By
Department of Mathematics, Dr. Bhimrao Ambedkar University,
Khandari Campus, Agra, India
In association with
FIRMS India

Minute to Minute Programme

29.10.2021 (https://meet.google.com/eah-mawj-xca)

09:30 – 09:35 AM	Joining of Participants
09:35 – 09:40 AM	Sarswati Vandana
09:40 - 09:50 AM.	Welcome Address and Introduction about FIRMS by Vice President FIRMS India and Gen Chair Dr. Sanjeev Kumar
09:50 – 10:00 AM	Welcome address by General Chair Dr. Valentina Emilia Balas
10:00 – 10:10 AM	Welcome address by General Co Chair Dr. Munish Sabharwal, Galgotias University, Noida
10:10 – 10:20 AM	Welcome address by General Co Chair Dr. Manu Pratap Singh,
10:20 – 10:30 AM	Address by Advisor (International) Abroad, Prof. Artem
10:30 – 10:40 AM	Address by Advisor, Prof.(Dr.) Anirudh Pradhan, GLA University, Mathura
10:40 – 10:50 AM	Address by Guest of Honour, Prof.(Dr.) D.K. Ghosh, Ex Prof Saurashtra University, Gujrat
10:50 – 11:05 AM	Address by Chief Guest Prof. (Dr.) Sanjay Bhayani, Saurashtra University Rajkot, India
11:05 – 11:15 AM	Vote of Thanks by Dr. Satyabhan Kulshrestha

First session (https://meet.google.com/igt-uqra-aor)
Session Chair: Dr. Manik Sharma, Dr. Vinod Kumar

12:00 – 12:30 PM	Prof. (Dr.) Valentina Emilia Balas, Aurel Vlaicu University of Arad, Romania
12:30 – 01:00 PM	Prof. (Dr.) Prof. Artem, Sumy state university, Ukraine

01:00 – 01:30 PM   Prof. (Dr.) Devendra Kumar, Oman
                        01:30 – 02:00 PM   Prof. (Dr.) Rajeeb Dey, NIT, Silchar, India

29/10/2021
Second session (https://meet.google.com/ppm-xhdt-zkr)
Session Chair: Dr. Deepak Kumar, MRIU, Faridabad,
Dr. Sanjeet Kumar, LNCT, Bhopal
03:00 – 03:45 PM   Prof (Dr.) R. K. Chaurasia, The ICFAI University, Jaipur
03:50 – 04:30 PM   Prof. (Dr.) Archna Dixit. GLA University, Mathura, India
04:30 – 05:00 PM   Prof. (Dr.) Alok Aggrawal, UPES, Dehradun
05:00 – 05:30 PM   Prof. (Dr.) Narendra Kumar, The ICFAI University, Jaipur India
Paper presentation session (ID 01 – 50)

30/10/2021
First session: https://meet.google.com/igt-uqra-aor
Session Chair: Dr. Satyabhan Kulshrestha, Dr. Sunil Kha
10:30 – 11:00 PM   Prof. (Dr.) Marius Balas, Aurel Vlaicu University of Arad, Romania
11:00 – 11:30 PM   Prof. (Dr.) Vineeta Singh, Dr. B. R. Ambedkar University, Agra, India
11:30 – 12:00 Noon   Prof. (Dr.) Anuj Kumar, TIET, Patiala, India
12:00 – 12:30 PM   Prof.(Dr.) Vijay Vir Singh, Yusuf Maitama Sule University, Kano,
                        Nigeria
12:30 – 01:00 PM   Prof. (Dr.) Jaya Gupta, JKLU, Jaipur India
01:00 – 01:30 PM   Prof. (Dr.) Kalpna Sharma, MUJ, Jaipur India
Paper Presentation Session (ID 51 – 100)

Second session (https://meet.google.com/ppm-xhdt-zkr)
Session Chair: Dr. Narendra Kumar
03:00 – 03:30 PM   Prof.(Dr.) P. K. Sahoo, BITS Hyderabad Campus, Hyderabad
03:30 – 04:00 PM   Prof. (Dr.) Harendra Singh, GPG College, Ghazipur, India
04:00 – 04:30 PM   Prof. (Dr.) Vijay Gupta, NSIT, New Delhi, India
04:30 – 05:00 PM   Prof. (Dr.) Rashmi Bhardwaj, GGSIP, New Delhi, India
05:00 PM Paper Presentation Session (ID 101 – 150)

31/10/2021
First session (https://meet.google.com/igt-uqra-aor)
Session Chair: Dr. Atul Chaturvedi, PSIT, Kanpur
10:00 – 10:30 AM   Prof. (Dr.) Sikha Srivastava, AMU, Aligarh, India

10:30 – 11:00 AM	Prof. (Dr.) Dr. K. C. lachhwani, NITTR Chandigarh
11:00 – 11:30 AM	Prof. (Dr.) Bagwati Chamola, JP University, Noida, India
11:30 – 12:00 AM	Prof. (Dr.) Gulsun Kurubacak, Anadolu University Turkey
12:00 – 12:30 PM	Prof. (Dr.) Nevin Makram Labib, SAMS, Egypt
12:30 – 01:00 PM	Prof.(Dr.) Sudhakar Dwivedi, SKUAST, Jammu

Second session: (https://meet.google.com/ppm-xhdt-zkr)
Session Chair: Dr. Satish

10:00 – 10:30 AM	Prof. (Dr.) Manoj Kumar, UPES, Dehradun
10:30 – 11:00 AM	Prof. (Dr.) Ritu Gupta, Amity University, Noida
11:00 – 11:30 AM	Prof. (Dr.) Kinnarry Thakkar, University of Mumbai, Mumbai, India
11:30 – 12:00 AM	Prof. (Dr.) Arun Saxena, Amity University, Noida
12::00 – 12:30 PM	Prof.(Dr.) Satyabhan Kulshrestha, RBSETC, Agra, India
12::30 – 01:30 PM	Prof.(Dr.) A. K. Singh, RBSETC, Agra, India

Paper Reading Session (ID 151 – 200)

Valedictory Session (https://meet.google.com/dfi-urfn-yfd)
Session Chair: Dr. Laxmi Poonia, Dr. Narendra Kumar
03:00 – 03:30 PM onwards
Chief Guest Dr. Jagdish Prasad, Amity University, Jaipur
Dr. Narendra Kumar, The ICFAI University, Jaipur
Dr. Anirudh Pradhan

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- Prof. Giriraj Prasad Jangir, MDSU, Ajmer, India
- Prof. Sanjay Sharma, SWPGC, Jaipur, India

Keynote Speakers
- Prof. (Dr.) Artem Artyukhov, Sumy State University, Sumy, Ukraine
- Prof. (Dr.) G. S. Khadekar, RTM Nagpur University, Nagpur, India
- Prof. (Dr.) Ivanenko Liudmyla, C.R.I., Ukraine
- Prof. (Dr.) Valentina Emilia Balas, Aurel Vlaicu University of Arad, Romania

Invited Speakers
- Prof. (Dr.) Aaron R. Rababaah, American University of Kuwait, Kuwait
- Prof. (Dr.) Ajay Shukla, NIT Surat, India
- Prof. (Dr.) Avanish Kumar, CSTT, New Delhi, India
- Prof. (Dr.) Bagwati Chamola, JP University, Noida, India

- Prof. (Dr.) D. K. Yadav, NIHFW, New Delhi, India
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Contents

Music Recommendation System

Nipun Prakash Gupta And Durgesh Kumar
SCSE, Galgotias University
Greater Noida, India
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Abstract: Music suggestions appear to be only a creation among the business to say about the fast, always developing innovative advances. Nonetheless, while a solid norm for comparable sorts is dependable, a track that proposes an upheld design for music designs is remarkable attributable to the enormous measure of tune related data on tune streaming stages, a melody pressure framework that upholds the momentum client list on his device would be advised to be set up so that imagined close to these lines on type trying to look out new tune track less difficult all through this endeavor, we ordinarily give an approach to show tune tracks on the client's gadget and presentations its properties like classification, culture, feelings, language, beat, and rhythm inside the (AI) field, Machine Learning (ML) can be a visual, incredible, which imitates an interaction, of course used to discover the issues of utilization and productivity. The algorithmic rule begins with a get-together of courses of action (liked by the client's melody) that generally type dynamic arrangements that contain types of music like those that the client has battled with too often or at present appreciating. Through the system of music advancement, the music supplier will expect and will in time give important music to their clients who are drawn in by the characteristics of tune tracks that has recently been procured. Our trial might want to grow the melody proposal contraption with an end goal to give ideas to comparative likenesses in alternate manners to the sound sign. This glances at the utilization of the ability to yield include contraption to see likeness among different techniques. Emerging tips are shown on the client's presentation to tune in.

Credit Card Fraud Detection Using Machine Learning

Gautam Kumar, Shivanesh Kumar and A Arul Prakash
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Abstract: The Master card has been a significant job for each individual due to gives a tremendous space to individuals for exchanges on the web. The organizations which give the offices to individuals to utilize the Master card are currently very ready to recognize the fake exchanges so clients are not charged for the things they didn't buy. As the recurrence of exchange develops, the quantity of deceitful exchanges likewise develop quickly. That sort of issue can be raise by Machine Learning with its calculations. This undertaking intends to outline the demonstrating of an informational index utilizing Machine Learning and calculation with Credit Card Fraud Detection. Displaying earlier charge card exchanges with information from those that ended up being false with the information of the ones for decide if another exchange is false or not. We will probably recognize 100% of false exchanges while diminishing the quantity of off base misrepresentation arrangements. Charge card Fraud Detection is an illustration of a typical order test. In this cycle, we have focused on information examination and pre-handling datasets notwithstanding the utilization of a few inconsistency discovery techniques, for example, Decision tree calculation, arbitrary woods calculation on the PCA changed Credit Card Transaction information example a piece of the Credit Card Fraud Detection Problem. From that point forward, this model is used to.

Keywords: Credit Card Fraud, application of machine learning, random forest algorithm, decision tree algorithm.

Android App For Household Services

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Abstract: Dealing with household services like plumbing, pest control, carpentry, electricity, etc. is major problem in the urban areas where people are busy in their daily activities. It is also difficult because of non-availability of service-providers around a certain region/ area or locality. So, in such a situation developing an Android App is very useful which can provide all the basic household services at finger tip. As we all know, how apps have changed our lives in all aspects. So, taking this into consideration, an app is developed which will provide all the basic household services like plumbing, carpentry, electricity, etc., which will help the users in all the aspects. This app is developed using different programming languages like Java, C, etc. and using different approaches. In this application, any user after creating his profile can look up for any type of household services. The user gets a list view of all the service-providers of that particular service. Also, the user can apply filter to the list so that he/she gets a list of service providers around that particular region/ area. The user can make online payments through this pp only. It is fully secure. After completion of the job, user can also give feedback for the service. The service providers get jobs by this app so they get employed also. This app is very useful as it provides all the services within this app only. The app is user-friendly and provides a safer environment for both the customers and service-providers.

Keywords: Android app, Household Services, Help in Basic Household Services.

A Novel Vehicle Renting System Incorporating Latest Commuter Needs

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Abstract: The planned arrange is meant to assist individuals build higher use of transportation. In recent times cars became a simple thanks to travel. Our self-drive system helps to form this simple, untroubled and fun to search out and use a automotive in keeping with your wants. someone will book a automotive particularly for his period, the individuals he travels with and also the variety of trip. The hiring method ranges from building a information to understanding the business construct and particularly creating this a simple thanks to adapt to a spread of travel wants. the fundamental framework of our planned system is to form associate simple-to-use and easy-to-use system for transaction his or her favorite automotive by transaction as special conditions and also the one who can rent our cars through our system is that the easy approach back. The planned software package has associate easy-to-use interface. thus users can feel abundant easier to figure with it. Through this program the manager will manage their employment, pay, job problems and automotive issues as insurance. Vehicle details is further to the system. Any existing vehicle details is also emended or removed by the Regulator. Vehicle dealings reports is monitored by the regulator, wherever needed. Therefore, there's no delay in getting any vehicle data, whenever necessary, vehicle details is obtained terribly quickly and simply. Customers also can use the system to get self-drive. The client should produce a replacement account before sign language in or work in to the System with their created account. He would then check the automotive out there at the branch and book a car. This program will facilitate manager and purchasers.

Keywords: Car Rental, Flexibility, Security

Air Pollution Monitoring System

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Abstract: The level of pollution is increasing rapidly due to factors like industries, urbanization, increasing in population, vehicle use which can affect human health. IOT Based Air Pollution Monitoring System is used to monitor the Air Quality over a web server using Internet. It will trigger an alarm when the air quality goes down beyond a certain level, means when there are sufficient amount of harmful gases present in the air like CO2, smoke, alcohol, benzene, NH3 and NOx. It will show the air quality in PPM on the LCD and as well as on webpage so that air pollution can be monitored very easily. The system uses MQ135 and MQ6 sensor for monitoring Air Quality as it detects most harmful gases and can measure their amount accurately.

Keywords: Air Pollution, MQ135 Sensor, IOT, Arduino Uno.

E-Commerce Website (Pharmacy E-Store)

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Abstract: Nowadays a website for e-Commerce has given the traditional companies much more opportunities in contacting customers more easily, implementing business to the new market, e-Commerce, increasing the profit, and gaining competitiveness. Even though lots of studies have given efforts to examine website quality factors affecting e-Commerce success and measuring it, there is a lack of scarcity of models for suggesting website development strategy for e-Commerce Success. The aim of this paper is to design and implement a web-based application of E- Commerce website on Pharmacy stores. The proposed system aims to speed up the process of buying and selling Medicines and Health care products with efficiency. the electronic pharmacy system supports the safety and security. Like in this lockdown and pandemic situation e-commerce helps the citizens around the country because an online shopping system permits a customer to buying and selling online through e-commerce.

Keywords: e- commerce website; website development; Pharmacy; pandemic;

TRIADON A Voice Assistant

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Abstract: This project aims to develop a simple human assistant using python. Triadon inspires apps like Cortana for Windows, and Siri for iOS. It is designed to provide an easy-to-use interface for a variety of tasks using well-defined instructions. Users can contact the assistant either by voice commands or by using the keyboard input. Voice assistants are software agents who can interpret a person's speech and respond with integrated voices. It will also discuss specific privacy and security issues available to voice assistants and other future use of these devices. Users can ask their assistants, play media, and manage other basic functions such as email, to-do lists, and calendars with voice commands. This column will examine the primary functionality and not unusual features of modern voice assistants. It'll also discuss unique privacy and protection problems available to voice assistants and different destiny use of these devices.

Keywords: Voice Assistant, future, design

Advantages of Using Containerization Approach for Advanced Version Control System

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Abstract: Version control systems like Git, Subversion, and Mercurial provide a logical means to organize files and coordinate their creation, controlled access, updating, and deletion across teams and organizations. Version control is closely related to automation. In fact, automation and continuous integration rely on these files for the source code of the automation itself, as well as the configuration to be automated and the data to be distributed. In order to improve software delivery, teams need to use version control for source code, test and deployment scripts, infrastructure and application configuration information, and the many libraries and packages they depend upon. In the version control system, teams must be able to query the current (and historical) state of their environments. Version control also offers direct benefits such as disaster recovery and auditability.. It means no single migration tool pre-check that if the software project structure is 100% compatible for Git server and if there's any discrepancy then automatically correct that structure. One of the main aims of DevOps is to bridge the gap

between Business, Dev and IT with the aim of converting the SDLC into a strategic resource for the firm. However, to achieve this goal, it is imperative to choose the right tools.

Automation: A Vital Paradigm for Plant Pathology

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Abstract: According to the, various surveys done in the agriculture sector leads to the conclusion that huge amount of crop cultivated in every season of the year are flushed out due to the heterogeneous diseases which they suffer from during their lifecycles. This compromise of time, money, efforts and quality can be cured by deploying up to the mark approaches of diagnosing plant diseases which detects early on time with more level of accuracy and quantification of severity. In this regard, urgent attention of the researchers is required for eliminating critical research gaps. In this study, recently adopted approaches for segmentation, classification and detection of plant diseases are analyzed to understand the scope of development and improvement. The advancement in agriculture industry can be attain by adopting the concept of automation in image processing, disease detection and their prevention. In return, this will ease the journey of farmers and directly-indirectly will take care of mankind too.

Keywords: Plant Diseases, Segmentation, Classification, Detection, Automation, Image Processing.

Desktop Assistant

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Abstract: Our default AI Voice is a smart personal assistant, a human language interface, automated software and Windows PC voice recognition software. It is an AI software that works by allowing you to interact with your computer using voice commands. It also allows you to do accurately convert speech to the text. Our artificial intelligence assistant enables the user to control his computer using native language commands and simplifies your life. It will be a powerful personal and office production software. Unlike chat-bot, most importantly it works very well and helps you in performing tasks. Desktop Voice Assistant assists end-user voice communication with a desktop computer and experience responds to user voice commands. Suggested the system has the ability to work offline communication on a desktop computer. It's called Desktop a clever voice-recognition assistant, i.e. takes a user input in voice or text format and processes it again returns the output in various ways as the action should be done or the search result told to the end-user.

Keywords: Voice Assistant, Speech Recognition, Internet, Speech Synthesis**.**

Improving Business Deliveries Using Continuous Integration and Continuous Delivery Using Jenkins and an Advanced Version Control System for Microservices-Based System

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Abstract: Micro-services architecture has evolved as the popular software development model for the enterprise applications. Since enterprise applications are complex by nature and they require out of the box scalability and low latency, these hence Micro-services provides a significant contribution in accomplishing these objectives. Enterprises can achieve a long-term vision of an API-enabled, loosely coupled, highly scalable and flexible platform architecture with Micro-services in containerized cloud environment. It has been observed that there are very few works available on this topic. Software industry needs to emphasize in the area to find out the defects at initial level rather than seen errors in production environments. Few works focus on Micro-services while others on Kubernetes issues and challenges but there is no relation between the two has been found. That motivated us to go for the proposed work, which depicts to identify the defects in early stage for Micro-services deployed on Kubernetes. Few standard basic guidelines for the micro-service architecture, in terms of naming convention, automation, monitoring & warning, fault design, and design philosophy, are proposed.

Keywords: Version Control System, Git, Subversion, micro-service, Kubernetes, container

Bulletin Buddy

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Abstract: Papers have been a steady source of infor- mation and data for us for around 400 years presently. Numerous mechanical progressions prompted more cur- rent methods of conveying news and data about different viewpoints. Since the coming of mechanical advance- ments like Counterfeit Insight, scientists and engineers have attempted to utilize Man-made consciousness in different fields. This exploration project is a push to make news perusing more fun and intelligent utilizing the ALAN voice associate. The web application is totally intelligent and the client can get news from any subject of interest just by talking. The client can access news by class, famous news channels, by terms, and so on The web application is totally responsive also, functions admirably with any gadget like a PC, tablet, or cell phone. The undertaking is created utilizing innovations like ReactJS, JavaScript, Visual Studio Code, and Alan computer based intelligence.

Keywords: Voice Associate, Alan AI, React JS

Importance of Creativity and Design Thinking in Outcome Based Education System: A Case Study

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Abstract: Outcome based Educational system, should have the subject like creativity and design thinking in engineering curriculum. Teachers have also very important role to create the thinking skills like innovation and creativity in class room. Outcome based education first sets the objective and after completion of that course or program students acquire that skills and knowledge. Some spe-cial assessment techniques are also implemented to assess the skills to be inculcated in the stu-dents. Researcher used some questions related to our outcome based educational system, curricu-lum contents like creativity and design thinking and traditional system. Researcher completed the survey from different educational stakeholders like school teachers, professors, technical insti-tute's teachers, parents and main stakeholder of any educational system that is student also. If student study with their interest they think creatively and innovatively with greater efficiency. The results indicate that teachers think creativity is very important in education almost majority teachers think about this strongly. And students and parents also think that the subject like crea-tivity and design thinking should be the part of curriculum. And some educational techniques should be used by teachers to create interest for subjects.

Keywords: creativity, design thinking, Education system, outcome based education, traditional education

Advance Microservices Based Approach for Distributed Version Control Processing Sensor-Generated Data Using IoT Devices

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Abstract: Information Technology companies have witnessed a growing recognition of emerging new architectural styles, such as Micro-services, for building event-oriented software systems. Usually, these applications are based on the concept of a database for each service, in which each database belongs to a completely single service. These services are built as separate business functions and are implemented using various technologies. Modern features, such as automatic deployment, are often integrated and implemented in the cloud according to proven DevOps methods. The amount of data generated every day - by sensors, website usage, events recorded by the system, etc. - is huge, as well as from various sources. Modern applications have to deal with this new flow of events. Event Micro-services allow us to obtain valuable information from these events and help users to make important business decisions. In this work event architecture concepts are investigated and it is explored that how this architectural

model places events at the center of the system. Some of the main advantages of applying this architectural pattern are explored. Design choices for an event driven Micro-services along with resiliency in the event based systems are discussed.

Keywords: Version Control System, Git, Subversion, microservice, Kubernetes, container

Fake News Detection Using Machine Learning

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Abstract: The issue of the fake news is not new; it has been reported since the ancient ages but it's like a wildfire in today's era of social media. These fake news have a huge impact, it is necessary to develop a reliable, optimized and accurate fake news detection model. In this work we've come up with a model based on the techniques for detecting the fake news using applications of NLP (Natural Language Processing). The model based on a Tf-idf (Term Frequency-Inverse Document Frequency) only tells word tallies which are relative to how often they're used in an article in your dataset. The problem with such models is that they do not examine the important qualities like context and word ordering. And we did a comparative study on count vectorizer and Tf-idf vectorizer and implementation of Multinomial Naïve Bayes, Passive Aggressive Algorithm and Random Forest Classifier on both Head Lines (Title) and Article (Text), and measure which scenario is best for implementation in fake news detection models.

Keywords: Machine Learning, Natural Language Processing (NLP), Count-vectorizer, Tf-idf Vectorizer, Multinomial Naive Bayes, Passive aggressive algorithm, Random Forest Classifier

Employment Management System

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Abstract: Our Employee Management System is a distributed application, developed to Maintain the details of employees working in Any organization. It maintains the information About the personal details of their employees, Also the details about the payroll system Which enable to generate the payslip. The Application is actually a suite of applications Developed using C Language. It is simple to understand and can be use Any one who is not even familiar with simple Employees system.

Even Driven Message Streaming Architectural Approach for Data Driven Microservices Based System Residing in Distributed Version Control System

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Abstract: Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers. It's also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure. DevOps methods. The amount of data generated every day - by sensors, website usage, events recorded by the system, etc. - is huge, as well as from various sources. Modern applications have to deal with this new flow of events. Event Micro-services allow us to obtain valuable information from these events and help users to make important business decisions. Digital transformation is imperative for all businesses, from the small to the enterprise. That message comes through loud and clear from seemingly every keynote, panel discussion, article, or study related to how businesses can remain competitive and relevant as the world becomes increasingly digital. Business needs to clearly focus on the right direction like what digital transformation means. Is it just a catchy way to say moving to the cloud? What are the specific steps we need to take? In today scenario, we need to design new jobs to help us create a framework for digital transformation or hire a consulting service.

Keywords: Version Control System, Git, Subversion, microservice, Kubernetes, container

Efficiency of Unit Testing

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Abstract: Testing is the most important method used to validate a software product. In object-oriented software, a class or a small collection of classes is generally chosen to represent a unit for unit testing purposes. Object-oriented systems introduce new issues to unit testing when compared to procedural systems. In the latter, functions are often the units, whereas a class is more than just a collection of functions. In this work we explore some issues relating to the unit testing of object-oriented systems, using the experimental approach for validation. Specifically, the research work makes the following contributions: Proposes a framework for assessing the effectiveness and the efficiency of unit testing and applies it to evaluate different coverage criteria. The experimental work in software testing has so far, generally focused on evaluating the effectiveness (fault detection capability) of a coverage criterion. The important issue of testing efficiency has not been sufficiently addressed. We propose an experimental framework for evaluating both effectiveness and efficiency of coverage based unit-testing approaches. This uses a novel approach to generate minimal test suites satisfying a given coverage criterion from a large collection of test cases and enables the evaluation of the relative performance of coverage-adequate test suites for different coverage criteria.

Keywords: Unit Testing, System testing, Use case, Integration Testing, Acceptance testing

IoT Energy Harvesting Rectenna: A Comparative Approach

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Abstract: There are recent innovations done in Electronics Technology, many of them are having numerous applications in our day today life. Most of them which are related to our day today work and without these we cannot see things to be done in an efficient way as the make the work easy and also monitor our health. These majorly includes PDA's, Laptops, Mobile phones, Health monitoring devices such as Fit bands, Smart watches and so on…. As these devices are interconnected to each other i.e. Device to Device connection without human interference. Such a application has to undergo many challenges. The machine (device) has a challenge of self sustainability as it has limited energy resource (Battery) to be utilized. This paper proposed majorly highlights the area or the challenge of energy utilization by using a certain design of antenna by which the issue of battery (which acts as an energy source) can be overcome. In this the steps such as design, optimization, and fabrication of antenna (can also be called as Energy Harvester) which is used to simply recycle the energy received from the frequency of 2.4Gz from the nearby WIFI or WLAN devices and converts it into a dc power. The circuit model basically includes an antenna, rectifier, a filter and other such supporting circuits.

Keywords: *IoT, Energy harvesting, Rectenna.*.

Facial Expression and Emotion Detection Recognition

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Abstract: Emotion recognition is the very easy and adequate way to express someone about what you are feeling or in what mood you are in at that point of time. In the current scenario of world where everything is being computed it is important to make the machine understand those emotions or expressions. Emotion recognition is the technique used for facial expression extraction. Here we are trying to make machine learn and understand the different emotions or features extraction so that to understand a face well. A will be made used the image processing and emotion understanding which will learn various types of expression given by the person such as happy, angry, sad etc. In this paper, we will explain facial expression and difference between expression and emotions. We will also study the brief about some of the previous researches done in the same field or work. Learning about what they has done will give a brief about the new work published. This paper also explains why facial expression recognition is important and what can be future works or improvements for this system. This paper concludes every fact about facial expression recognition from its definition to how it works to its improvements.

Keywords: Facial expression, Emotion Recognition, Action Units, Facial Expression Extraction, Neutral.

An Efficient Optimized Sorting Technique Using Combination of Other Techniques

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Abstract: The problem of sorting of any case or problem which occur on a sudden in computer programming and we need to solve/sort it. Many different sorting algorithms are developed and improved to form sorting optimized and fast. As a measure of performance mainly the typical number of operations or the typical execution times of those algorithms are compared. There is no one sorting method that is best for every situation Some of the factors to be considered in choosing a algorithm include the dimensions of the list to be sorted, the programming effort, the amount of words of main memory available, the size of disk or tape units, the extent to which the list is already ordered, and the distribution of values. *Index Terms*—Sorting, comparisons, movement sorting algorithms, methods, stable, unstable, internal sorting and do aiming to optimize the suggests that of doing sorting through. Algorithm. we have a tendency to tend to aiming to propose a replacement rule that acts as Associate in Nursing adapter for our operation. Like, once the array is given to us of America it goes among the adapter technique and here the foremost task comes. The adapter automatically selects from the varied sorting techniques aiming to be used once the completion of one step. Keeping the browse on their effectiveness at every case i.e. Worst case, Average case, and best case, the sorting technique is chosen. throughout this contemporary projected rule, we are going to use multiple sorting techniques in Associate in Nursing passing single disadvantage, so getting the solution plenty of optimized.

Virtual Assistance: A Study on User Application and User Experience of Customer Service Systems

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Abstract: Virtual Assistants has ability to support customer in accessing relevant data. These applications use language processing, learning methods as well social skills to provide enough usability for customers. In e-market, assistants are used to help users in getting the right one details of the service. This function tests the data service and the features of the three visible helpers on serval websites. Analytical features cover the quality of service and the user experience of visual aid programs. Preliminary results indicate that visual technologies are used in building of the visual assistant which has a major effect on the user comfort, i.e. The interaction seen by customers and the assistant is very understandable too so it's more fun. In all, all assistants are met with the general manager a feeling of eagerness. However, points on the usability of the services are indicative that they must be upgraded in relation to certain relevant factors. Here three Virtual Assistances are found and compared in terms of user experience. Therefore, a heuristic analysis and application of the study were performed. Preliminary results show that users tend to see one VA better, which may be due to strong language of help finding power. It will be useful to contrast these initial results with the stored user words and find that will provide brief information on customer and personal needs working while collaboration with virtual assistance. In this Carla testified to that fact very flexible with questionnaires, although other VA's are allowed with normal flexibility, where Carla is 72.5% efficient whereas Otto and Jana are 65% and 43.3% efficient respectively. After few years, we will analyze User's view of beauty and its impact on fun as well belief.

Keywords: Virtual assistance, Smart companion, Technology, User bonding, Human nature data, Customer Service, User Motivation

Performance Evaluation of Non-Linear Reduction Techniques MLLE And T-SNE for Data in Higher Dimensional Topological Space

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Abstract: In telecom industry, datasets are commonly used to monitor health of packet core gateway nodes. Inherently these datasets are higher dimensional in nature containing 100+ system level attributes.

Regression analysis is continuously performed on these key attributes to predict system health and accordingly preventive and corrective measures are taken. Its not recommended to directly apply regression techniques on high dimensional data as it going to take significant computational time & cost. So before applying any regression technique, its imperative to reduce high dimension data to lower dimension subspace and keeping the essence of original data. In this paper, a performance comparison of two competitive non-linear dimensional reduction techniques – t-SNE & MLLE along with linear method PCA is evaluated on the basis of telecom gateway data. We have also visually compared dimensional reduction techniques applied on handwritten digits images.

Keywords: MLLE, t-SNE, PCA, Topological subspace, Machine Learning and Artificial Intelligence

Potent Medicinal Applications of Essential Oil of *Hedychium coronarium Koenig* Species

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Abstract: The rhizome of *Hedychium coronarium* species were subjected for extraction of essential oil as secondary metabolites by hydrodistillation method. The total eleven components were revealed in the essential oil by GC/ GC-FID and GCHRMS analysis. Eucalyptol was the major component of oil along with α-terpinol and β-pinene. Out of four tested bacteria (two gram +ve and two gram –ve), the oil showed excellent antibacterial activity versus *E. coli* while the preeminent antifungal potency was found against *C. albicans*. The excellent antimalarial efficacy of oil was observed against *Plasmodium falciparum*. To the best, the presence of –(a) 1,4-cineole, (b)Bicyclo[2,2,1]heptan-3-one,6,6-dimethyl-2methylene,(c)7,11Dimethyldodeca-2,6,10-trien-1-ol(E,E) and (d)1-terpinol in *Hedychium coronarium* are reported first time for Konkan region in this study.

Keywords: Eucalyptol, Essential oil, Antimalarial activity.

Emotion Based Music Player Using Machine Learning Algorithm

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Abstract: Music is normally entwined with our everyday life. Individuals will in general utilize music toward the beginning of the day to easily complete their errands, to let free after work, and to endure a preparation time. Understudies use music while learning and specialists with music out of sight play out their most concentrated methods. Fundamentally, individuals use music to improve their disposition. Positive state of brain expands the intensity of creation, improves dynamic measure, and reinforces social connections. Besides, a positive perspective helps us from stress, which can in any case damagingly affect our wellbeing and prosperity. The thought is to computerize the connections between the clients and music player, to give an easy to understand climate. This undertaking presents a music player that learns all the inclinations, feelings, and exercises of a client also, redoes its tune determination in like manner. The different outward appearances of clients can be recorded by the device to decide the feeling of the client at that occasion Testing the application utilizing live caught pictures and to distinguish the feeling and select music appropriately are introduced. The technique of tackling this issue is to fabricate a completely useful application (Front End and Back End) that takes care of this issue, beginning from the front end there a simple and justifiable.

Keywords: Emotion recognition, Computer vision, Camera, Music, Categorization, recommendations, Machine Learning, Algorithm

Oil Price Forecasting Using Machine Learning

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Abstract: Oil embodies play a significant role within the world economy because the backbone and origin of various industries. It is a crucial source of energy representing an essential stuff and as a significant component in many manufacturing processes and transportation. Oil price suffer from high volatility and fluctuations. In global markets, it is the foremost active and heavily traded commodity. Recently many studies emerged to debate the matter of predicting oil prices and seeking to access to the most effective outcomes. Despite these attempts there have been no enough studies that would be used as a reference covering all characteristics of the matter. During this research, a comprehensive survey covering the previous methods and few outcome and experiments are presented with a spotlight on and maintaining the mandatory steps when predicting oil prices. This paper uses a variable time window and also polynomial spoilage method to define the trend term of your time series and proposes a fossil oil price forecasting method supported time-varying trend decomposition to explain the changes in trends over time and forecast petroleum prices. First, to characterize the time-varying characteristics of fossil fuel price trends, the essential concepts of postposition intervals, pre-position intervals and time-varying windows are defined. Second, a crude price series is spoilage with a time-varying window to see the simple fitting results. The parameter vector is employed as a time-varying trend. Then, to quantitatively describe the continuation of the time-varying trend, the concept of the trend threshold is defined, and an equivalent algorithm for choosing the trend threshold is given. Finally, through the expected trend thresholds, the historical reference data are selected, and also the time-varying trend is combined to complete the rock oil price forecast. Through enquiry, it is found that the time-varying trend prediction model proposed during this paper achieves a far better prediction than several common models. These outcomes can provide suggestions and references for investors within the international fossil fuel market to know the trends of oil prices and improve their investment decisions.

Keywords: Machine learning, Oil price and prediction.

Effective Equation of State in Modified Gravity and Observational Constraints

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Abstract: In this article, the bulk viscosity is introduced in a modified gravity model. The gravitational action has a general $f(R, T)$ form, where R and T are the curvature scalar and the trace of energy momentum tensor respectively. An effective equation of state (EoS) has been investigated in the cosmological evolution with bulk viscosity. In the present scenario, the Hubble parameter which has a scaling relation with the redshift can be obtained generically. The role of deceleration parameter q and EoS parameter ω is discussed to explain the late-time accelerating expansion of the Universe. The statefinder parameters and *Om* diagnostic analysis are discussed for our obtained model to distinguish from other dark energy models together with the analysis of energy conditions and velocity of sound for the model. We have also numerically investigated the model by detailed maximum likelihood analysis of 580 type Ia supernovae from Union 2.1 compilation datasets and updated 57 Hubble datasets (31 data points from differential age method and 26 points from BAO and other methods). It is with efforts found that the present model is in good agreement with observations.

Keywords: f(R, T) gravity, equation of state, bulk viscosity, energy conditions, observational constraints

Detection of Phishing Websites Using ML

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Abstract: Phishing internet sites contents and internet-predicated consummately data includes varied hints. The victim's personal and sensitive records is obtained by phishing sites which lead them to surf a phishing internet site that resembles a valid internet site, that's one of the illegal assaults triumphing with inside the cyber world. The proposed a brilliant version for detecting phishing internet pages primarily predicated on Extreme Learning Machine. Types of internet pages are one of a kind in phrases in their features. Hence, we require to utilize a web page feature set to preserve any phishing assault. A Machine Learning approach is implemented to resist these attacks. The projected technique for importing phishing dataset, legitimate URLs from the database, and also data that is obtained are pre-processed. Phishing website detection is performed on four classes of URL features: domain, address, abnormal based, HTML, JavaScript features. With the aid of processed data URL features are extracted also values for URL attribute are generated. URL analysis is performed by ML techniques that calculates the threshold value as well as range value for URL attributes. The objective of this project is to implement an ELM classification for several features and some phishing sites within the database.

Keywords: Browser extensions, Extreme Learning Machine(ELM), Machine, Support Vector Machine(SVM), URL Phishing Websites

Multi-Traffic Scene Perception Based On Supervised Learning

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Abstract: Car crashes are especially genuine at a blustery day, night without streetlight, cloudy, stormy night, foggy day and numerous other low perceivability conditions. Present vision driver help frameworks are intended to perform under pleasant climate conditions. Characterization is a technique to recognize the kind of optical attributes for vision improvement calculations to make them more effective. To improve machine vision in awful climate circumstances, a multi-class climate grouping strategy is introduced dependent on different climate includes and administered learning. Initially, hidden visual highlights are extricated from multi-traffic scene pictures, and afterward the component was communicated as an eight-measurements include framework. Besides, five regulated learning calculations are utilized to prepare classifiers. The examination shows that separated highlights can precisely portray the picture semantics and the classifiers have high acknowledgment exactness rate and versatile capacity. The proposed strategy gives the premise to additionally improving the identification of front vehicle location during evening time enlightenment changes, just as upgrading the driver's field of vision in a foggy day.

Keywords: Traffic scene perception, traffic sign detection, car detection, cyclist detection, object Subcategorization

Real-time Head Pose Estimation with Facial Keypoints Prediction on Masked/Unmasked Faces

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Abstract: Numerous Governing authorities/organizations expect people to utilize the services only if they wear masks, effectively masking both their nose and mouth, according to the rules from the World Health Organization (WHO). Manual screening and distinguishing proof of individuals following/not following this arrangement is an enormous assignment in public places. Keeping in mind these challenges, the ideal methodology is to utilize innovations in Artificial Intelligence and Deep Learning; to be utilized as to make this undertaking straightforward, which is anything but difficult to utilize and robotized. In this paper, we propose "Deep Face Mask", which is a high-precision and efficient face mask classifier. The presented Deep Face Mask is a one-stage identifier, which consists of a Deep Convolutional Neural Network (DCNN) to combine significant level semantic data with different element/feature maps. Other than this, we additionally investigate the chance of actualizing Deep Face-Mask with a light-weighted neural organization Mobile Net for cell phones. MTCNN, utilizes the inalienable connection among's recognition and alignment to help boost their performance. Specifically, our frame work uses a cascaded architecture with three phases of diligently planned DCNN to predict the face and its key points or landmarks in a coarse-to fine way.

Keywords: Computer Vision, Face detection, Image Recognition, Image Classification, Object Detection and Deep Learning Algorithm.

Implementation of Online E –Auction to Overcome the Problem of Corruption with Effective and Efficient Procurement with Transparency

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Abstract: This research paper explores the concept of e-Auction, an increasingly form of online procurement. There is fixed delivery policy. This is a fully dynamic system which can be easily operated by the users. This research paper explores all the increasing form of online procurement. Online e auction system is gaining popularity day by day because of its ease of making online bidding and selling or buying. Users can freely go the website and register there and it's ready for selling or buying their product. The main thing that is needed to be there is trust among the users, so that they can easily register and take part in the process without having any doubt regarding security. The aim of any online system are related with two points that are: 1. Customer satisfaction 2. Business purpose Therefore, to meet these requirements there must be need of making enhancements in the online auction system. This paper will explore the all forms of online procurement that we can make to improve the current system.

Keywords: E –Auction, Web Communication, Application level protocols, Information Security.

Object Recognition Model Using Deep Learning

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Abstract -Because of a close relationship between object discovery video and image comprehension, it attracted lot of research attention over the years. Indigenous methods of acquisition are built on handmade material and in highly trained structures. Their work stands out easily by creating sophisticated ensembles that incorporate many elements of low-quality images with high-quality contents from critic and searchers. we provide an overview of the frameworks for finding a most in-depth material for learning. Our review begins with brief introduction to history in depth of learning and representative tools, namely the CNN. After this we focus on building a standard acquisition as well as other modifications and operational strategies to improve the performance of continuous acquisitions. Since some of the findings show a variety of features, we also briefly examine some of the specific activities, including key discovery. Experimental analysis is also provided to compare different method and to obtain the reasonable conclusions. Finally the promising clues and activities discovery work and neural learning programs.
Keywords: Object Recognition, Deep Learning, Object Discovery, Neural Network

Mask and Temperature Detection System Using Transfer Learning for Protection Against Covid-19

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Abstract: Businesses have challenges during COVID-19 era to upgrade their present structure and to be more prompt, risk-free, and useful for worker, customers, and the people. With ongoing current infections, it good to have innovative analysis application and methods in order to reduce the Risk. For public safety and health, WHO are recommend the employment of face mask and measuring body temperature before going in public places and any Business premises to restrict the travel of COVID-19 virus. Our team from Galgotias University is taking this challenge to develop an application using deep learning technique. It will process random infrared live images and will identify if the human is safe to enter the premise. A person not wearing a mask or processing abnormal body temperature should be identified a hazard. For creating a real-time and exact deep learning application we will optimize models during AI and neural network training (using random infrared training images data). The aim here is to train model using CNN algorithm that is not exclusive close but easy and weightless for actual time reasoning on the reality. Trimming the model to helps reduce the total strength of the model which will be effective in higher performance. This should be done without offering precision as compared to the important data. Finally to maximize inference throughput, the application should be tested on Test data, Every step we will try to perform weight optimization to make algorithm light weighted, efficient and very accurate.

Keywords: Transfer Learning, Deep Learning, Mask and Temperature detection, COVID – 19

Real-Time Object Detection in Video and Anomaly Detection

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Abstract:- Road casualties have become a major problem in the current scenario particularly in India and the main causes due to rash driving, overtaking, and breaching traffic rules. The necessity to probe this has been very crucial and distinct methods have been used so far. However, with the technologies getting advanced day-by-day, many technologies have been developed. In this context, we present a mechanism which can detect automobiles that cross the maximum speed limit. using object detection and it will also tell us the probability of accident of the vehicle through verification and scaling the probability of accident through speed-range scale. Object Detection is a common Computer Vision approach which deals with recognizing and tracing the object of certain classes in the image. Using various dataset and their sample we trained our model so that the accuracy and completeness of the model are maintained.

Keywords: Speed detection, Calculation of the probability, and accident.

Optical Character Recognition and language conversion.

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Abstract: The purpose of this paper is to improve Optical Capture Recognition (OCR) for Android based mobile devices. Text, photos stored on Android phones such as the OS, and photos taken by any Android device are heavily focused on this app. And over time. This app will allow its users to do many things with a jiffy, such as text copy from the abovementioned texts and convert it, instead of having to rewrite it. The second phase of this app development involves text-processing and other languages as required. The following OCR translator converts all type of images either it be printed or handwritten alphabets and words into ASCII. So OCR allows users to directly used pictures as texts without going through a tedious task of data entry which cost money as well as time with even less accuracy. The product gives whole-format resolution and document recording solution. Typically, the OCR uses the construction of an open, balanced and controlled work environment. Includes form definitions, scanning, image processing, and scanning caption capabilities, photos stored on Android devices, and photos taken by an Android device containing text are scanned by this OCR and searchable data. The app will be like reading texts and cards. for example, it is not uncommon to retrieve information from a card and save it directly to the phone, or to retrieve text from a text image taken by an Android device and save it for reuse. The app is designed for Android devices with high resolution camera. Also, the text printed without skew is that the main focus of the app is time saving, but it is often added afterwards. The ocr converter can be useful in a whole lot of new ways in traffic for number plate recognition and can even used for automatic detection of fraudulent papers in banks and different institutions.

Keywords: Advanced analysis app, OCR, Language conversion, Android app, Text recognition, OCR converter

Efficient Natural Disaster and Epidemic System for COVID -19

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Abstract: Events of natural disaster and epidemics are closely associated with the dynamics of creation and health. As such evils have shown it to be self-defeating; conditions have gone from bad to worse. Fortunately, much of the technology is used to obtain reliable information and disaster analysis. Disasters and epidemics cause significant economic losses. Our research focuses on building a platform to help the people in short interval of time and tell them Nearest Shelter with the help of peripheral people or anyone who is willing to help independent of his/ her will. Natural disaster and epidemic is impossible to avoid or prevent. There are no other ways to stop this thing, but we can take the necessary steps to reduce its destruction. These days the focus is on the possible use of mobile Communication technology and through website. Alert messaging will play vital role through technology.

Keywords: Epidemic, Natural Disaster, Nearest Shelter, Mobile Communication Technology

Comparative Analysis of Emotion Detection Using CNN and Multilayer Perceptron

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Abstract: This paper talks about the application of feature extraction of facial expressions with the help of a combination of neural networks for the detection of different sets of emotion such as happy, sad, angry, fear, surprise, neutral etc. We humans are capable of generating hundreds of facial expressions when we communicate with each other that differ in levels of intensity, complexity, and meaning. This paper analyses the limitations of existing systems for emotion detection. Carrying out the experiment, we have achieved 93 percent accurate results with the help of convolution neural networks and it is easier and simpler than Emotion detection using a Multilayer Perceptron where 87 percent accuracy was achieved. Existing Human Emotion Recognition Systems using MLP have been compared with Emotion Recognition Systems using CNN. By this paper it was found out that neural network obtained better results for the system.

Keywords: Emotions, Feature Extraction, Neural Network, Emotion Recognition, Emotion Detection, Facial Recognition, Convolutional Neural Network, Multilayer Perceptron.

Incident Alert System

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Abstract: As the capturing of the moments and uploading them on social media is increased day by day but it is not beneficial for anyone. This paper deals with the alertness of vulnerable incidents that happen in localities. This introduces a vulnerable incident alerting system which alerts a person who is in the nearby locality. As there is no integrated incident alert system available till yet, so this research paper is for integrated systems that report different types of incident. If the person is self-witnessing the accident then the person can upload the vulnerable incident and other registered users will get the notification for the same and the user who gets notified for the vulnerable incident can take the appropriate decision for it(if required).With this system the incident location can be detected easily and the information of the incident took place can be sent via the GPS to the emergency offerings for assistance.

Keywords: Black List Server, GPS, JDBC, PHP Alert Session, White List Server.

Predicting House Price Using Regression Algorithm in Machine Learning

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Abstract: These days, more than 90 percent of people use web-based marketing programs to buy or sell their real estate. There are many platforms that integrate housing data and present them on a single website, such as Google, quicker homes or 99Acres. The problem is that none of these current programs are designed to meet every need, especially for college students and commuters on a daily basis in one place. Those people, when looking for rental housing, need to search between many different websites to find all the information they need such as travel time from home to work and safety details. Usually, the House price index represents a summary of the average price of a dwelling. While a single-family price forecast, we need a more precise approach based on location, type of house, size, year of construction, local resources, and other factors that may affect the demand and supply of a home. With limited databases and data features, active and integrated pre-processing data processing, the engineering feature of the test feature is tested in this paper. Frequently, the House price guide represents changes in the short-term value of urban housing. While estimating the price of a single-family home, it requires a more precise approach based on location, type of house, size, year of building, local properties, and other factors that can confuse a home application and offer. With inadequate data and data structures, previously used and integrated data processing, the first-feature engineering method is explored in this paper. The proposed approach has recently been planted as the key seed for the Kaggle Task "Family Values: Advanced Management Strategies". The future task of the project is that we may need to tune the model again because human factors are something we could not predict.

Keywords: Machine Learning, Housing prices, regression algorithm, price, random forest, prediction, data mining

Design And Analysis Of An Optimal Combination Of Renewable Energy Resources Using Homer Pro Software

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Abstract: Since India is the third-largest consumer and producer of electricity, the current scenario of energy demand has negatively affected the conventional grid system and thus evoked the need for renewable and hybrid energy systems. This has affected the consumers also as they have to pay expensive electricity charges. Renewable energy systems are indeed the need of the hour. In this paper, we will examine different renewable systems connected with the grid using HOMER Pro Software, which simulates a viable system for all possible combinations of the equipment for an entire year. The resources taken in this paper are grid-connected solar and biomass systems along with the battery storage. The aim is to study, analyse different combinations of these resources and thus obtain the most economically sound combination which will reduce the per-unit cost of electricity of the city in consideration. The city taken for this study is Agra, Uttar Pradesh.

Keywords: Biogas, Electricity Charges, Energy Storage systems, Homer Pro, Solar PV, System Converter

Music Application

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Abstract: The motivation behind this report is to introduce a definite depiction of the Recommended System that we will plan and execute. It will explain the explanation and features of the system, the interfaces of the structure, what the structure will do, the impediments under which it should work This app\website is proposed for both the accomplices and the fashioners of the structure.. The relating conditions that this task will be incorporated to should and presumably will have an enormous number and assortment of clients The clients could conceivably know about their requirement for a proposal highlight on the product or site they are utilizing, however such highlights can expand effectiveness and save time to clients, while they are glancing in where there is a huge number and assortment of substance which makes them burn through a ton of time to discover what they need. According to another perspective, there may be clients that don't actually have the foggiest idea what they are searching for and such circumstances can likewise make a valuable arrangement out of this task . To take care of the issue of complex capacities and enormous expected of music player on the current market, another music Aspects.

A Study of Biometric Approach with Inheritance Using Fingerprint Identification

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Abstract: Fingerprints are static and do not change with age, so an individual will have the same fingerprint from infancy to adulthood. Biometric identification of a person is fast, easy-to-use, precise, trustworthy and economical over traditional knowledge-based and token-based methods. The Fingerprint identification is popular biometric technique of human body which is used to recognize person uniquely. This technique provides easiness in acquiring, availability of plenty sources (i.e., ten fingers) for collecting data and their established use. The main objective of this article is to study of biometric approach using fingerprint recognition and effect of fingerprint of family members due to inheritance. Fingerprint Matching based on Extracted Minutiae will be used for performance analysis with the help of Fingerprint Image processing tools of MATLAB.

Keywords: Fingerprint, Biometric, Fingerprint Identification, Minutia, Ridges and Bifurcation Matching.

Terahertz Plasmons Excitation By Nonlinear Mixing of Two Laser Beams in Graphene Coated Optical Fiber

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Abstract: Since last one decade Terahertz radiation generation (.1-10 THz), using intense laser matter interaction, has emerged as a major area of research in recent years due to its potential applications. In such cases it is desirable to tightly confine the probing radiation, while at the same time providing easy accessibility of the guided mode especially surface plasmons (SPs). Graphene is a most suitable material for THz radiation generation. Here we proposed an efficient mechanism of THz SPs generation in graphene coated optical fibre. Two laser beams propagate inside the graphene coated optical fibre. They impart oscillatory velocities to electrons and exert a beat frequency ponderomotive force on them, inducing oscillatory velocity on electrons. The latter beats with the surface ripple to produce a current that resonantly excites THz SPW.

Keywords: Graphene, Surface plasmons, Terahertz radiation, Laser

Internet Marketing: Advertising Strategies And Prices

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Abstract: Information technology is becoming a basic tool for many industries, as well as creating an opportunity for direct active communication of all market participants, which significantly increases competition. As a result, customers have a very large selection of goods and services, fairly easy access to them, and significant price diversification. All this leads to new requirements for modern marketing. Modern marketing significantly changes not only the functions but also the approaches to business processes. A highly competitive environment requires companies to use a system of interconnected marketing tools using an integrated marketing approach. The paper is devoted to investigating advertising prices and advertising strategies of Google. The list of major Google products is analysed. The relevance of advertising strategies to goals, ad placement, message creation, budget constraints, and ad delivery is determined. The difference in advertising prices in different countries has been studied. The cost per click analysis of European countries is carried out. Using the DEA model analysed advertisement efficiency by VRS technology and input-oriented efficiency for European countries.

Keywords: Advertising, Data Envelopment Analysis, Google, Internet marketing, Price, Strategy.

Evaluation of Symmetric Encryption Algorithms for Efficacy & Performance

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Abstract: Increasing number of data exchange over the internet has increased the importance of data security. There is different encryption algorithm that plays a crucial role in data security. These algorithms take a significant amount of computing power and time to evaluate. There are mainly two ways to differentiate these algorithms. First is their ability to provide protection to the information. The other is their speed and time efficiency in providing these protections. This paper provides performance comparison between these different encryption algorithms. The comparison is done between algorithms like AES, DES, 3DES, Blowfish. Simulation data is provided to show the efficiency of these algorithms.

Keywords: AES, DES, 3DES, Blowfish cryptography, encryption algorithm

Characterization of 3,6 Dibromo Carbazole Derivatives and its Anti-Fungal and Anti-Bacterial Activity

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Abstract: Carbazole can be easily functionalize at N-position and then covalently linked with other compounds. Carbazole compounds are drawn attention because of their versatility in functionalize, good chemical and environmental stability. N9-[{(Benzylideno-Hydrazino) acetyl} 3,6-dibromo carbazole, and 2-substituted aryl 3-N9 (acetylamino)1,3-thiazolidin-4-ones] 3,6-dibromo carbazole have been synthesized and tested for Anti-Microbial activity. Rf value were determined by TLC on silica gel coated plates using iodine as a developer.

Keywords: spectra, KBR, H-NMR, and DRX-300.

Exploring Cloud Computing and its Service Models

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Abstract: Cloud Computing technology has accelerated so fast that it has took everyone's attention towards itself. Cloud Computing is an online technology which stores information, resources, software, and are provided on demand of the user. Cloud computing technology is developed by combining grid computing, distributed computing, parallel computing, and ubiquitous computing. It has the most powerful architecture of computations. The main motive of this technology is to build a service environment with powerful computing capabilities in a minimal cost, and using the advanced service models like SaaS (Software as a Service), PaaS (Platform as a Service), IaaS (Infrastructure as a Service), HaaS (Hardware as a Service) distributes the powerful computing capacity to the users. This paper will lighten up the depth of cloud computing, its service models, deployment models of cloud computing.

Keywords: *Cloud Computing, Service Model, Deployment Model*.

Face Mask Detection Using Open CV

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Abstract: Face Mask Detection program developed by OpenCV, Keras / TensorFlow uses Deep Learning ideas and laptop Vision to detect face masks on continuous still images such as video streaming. within the gift situation thanks to Covid-19, there are no requests for the acquisition of a mask to save the area that is currently in dire need of transport, crowded areas, accommodations, major manufacturers and various businesses to ensure safety. Also, the lack of large image data with a 'mask' has made this task even more difficult and difficult. Following the outbreak of the global COVID-19 epidemic, there arose a strong need for protective measures, with a face mask. The primary purpose of the project is to determine whether there is a face mask on people's faces in video and photos streamed live. We used the depth of learning to make our face detection model. The features used for object detection are the Single Shot Detector (SSD) due to its performance with precision and high speed. Apart from this, we have used the basic concepts to transfer learning to neural networks ultimately without the presence or absence of image in the image or video stream. Test results show that our model works at 100% efficiency with 99% accuracy of test and memory, respectively. Our mask detector did not use any data from the inserted images. The model is accurate, and as we are accustomed to using the design of MobileNetV2, savings are calculated collaboratively and therefore make it easier to move the model to embedded programs (Raspberry Pi, Google Coral, etc.). This program will be used for time programs that require the acquisition of face masks for security operations due to the emergence of Covid-19. The project is integrated with the installed plans for use at airports, train stations, offices, schools and public places to ensure that the local unit of community safety tips is followed.

Various Aspects of Baggage Inspection Through Machine Learning

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Abstract: Scanning passengers' luggage using x-ray and recognizing images has become an important technique for detecting harmful materials in the baggage at crowded places. This paper aims at providing an automatic method for detecting harmful things, probably a gun in the baggage. This is basically a research for the software designed using various complex machine learning algorithms. It can be installed with any of the X-Ray detection machines used anywhere to detect baggage. It will provide Automation to the detection Work and Improvised the security and basic human errors. As we can see at railway stations and metros,If there are lot of Baggages at the same time at a Scanner Machine then it becomes very hard for a person to look at all the baggages at the same time but the software can easily scan a lot of baggages in a moment and can reduce human efforts.

Keywords: Automated, Installed in X-ray Machines, Security, Advanced ML techniques, Nearest Neighbour Classifier

Bandgap Reference Circuit, Evolution and Design Trends

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Abstract: Precision Voltage reference circuit evolved from a larger Temperature coefficient to a unit temperature coefficient with the continuous research. Supply of high degree of stable reference voltage for the data converters and other devices is the biggest challenge for any designer. The data conversion (either from Analog to digital or digital to Analog) is the basic requirement of many modern technology applications like space, medical, artificial interactions and data dependent devices. The data converters are designed to work over wider range of temperature to suite for different environments, hence the reference voltage should be very ideal for any temperature variations. But the precision of the reference severely damaged due to the second order factors of transistors. Latest high intelligent and decision making applications like artificial intelligence demands highly accurate ADC and DAC converters for avoiding data misconceptions. This accuracy is well depends on the precision of the reference voltage supplied by the bandgap reference (BGR) circuits. And the precision is depends on the Process, Voltage and Temperature (PVT) variations. Since the device should be designed to operate at different temperatures, the reference voltage should be robust for any temperature variations. The design of BGR having low temperature coefficient (TC) is the deserved. In this article the different concepts and techniques of BGR design and the setbacks are well discussed.

Keywords: Bandgap reference, Temperature coefficient, First order, Second order, Temperature Range, Precision Reference etc.

Design of Semi-Automated Fire Control Robot Using IOT Application

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Abstract: Human involvement in identifying and controlling hazardous situations like fire accidents is not always a safe approach. In all these situations, identification of fire at an early stage will evade loss without harming the people who is intended for that task. Normally fire causes huge damage because of incapability of human being to control fire. If fire can be detected and extinguished at an early stage, the lives can be saved. Robotics can be used to solve this issue due to advancements and man-machine interface provides effective results. In the current work, the fundamental idea would be to develop a special kind of menu driven control for the robot, in which the menu will probably be device driven. In device driven approach, the choice will be between identifying either the gestures or the application keys of relevant platform. Using an android application, one can restrict the input domain space in the robot. Once fire accident is informed, equipped robot will be instructed to extinguish fire. The robot will be mounted with sprinkler. Once the control signals were received, the sprinkler on the robot will perform the designated function.

Keywords: SoC, Raspberry Pi, Temperature Sensor, Multi- tasking.

Exploiting Full-Duplex Relaying in Vehicular Cooperative NOMA for Residual Self-Interference in Amplify and Forward and Decode and Forward with Incremental Relaying

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Abstract: In this paper, the downlink cooperative Non-orthogonal multiple access (NOMA) is considered in vehicular networks with full duplex relay employing amplify and forward (AF) or decode and forward (DF)relaying protocol. We demonstrate performance of the proposed system using linear energy harvesting (EH) with power splitting protocol and incremental relaying to reduce the impact of residual self-interference at relay vehicle. The simulation results depict the effects of power division ratio on outage probability at Vehicles (V1 and V2) when relay vehicle operates in AF or DF. The vehicle close to the roadside units (RSU) achieves better outage behavior even at low SNR region and the outage it is observed that outage behavior of far end user is better with DF rather than AF.

Keywords: Vehicular Networks, Energy Harvesting, Full Duplexing, Amplify and Forward, Decode and Forward, Non-orthogonal multiple access, Incremental Relaying.

Design 14 Bit Current Steering Digital To Analog Converter with Self-Checking Circuit For High speed IoT Applications

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Abstract: A current steering 14 bit digital to analog converter (DAC) with self checking circuit is designed and implemented. The performance of the circuit is improved by using the randomization circuit as well as a clock generator and a switch control circuit. The designed DAC showed a spurious-free dynamic range as 68dB with integral non-linearity and differential nonlinearity as 2.8 LSB and 3.5 LSB respectively after the self calibration. Proposed DAC with self checking circuit is designed using SCL 0.18μm technology.

Keywords: Integral nonlinearity, Differential non-linearity, Current Trimming, DAC, Spurious free dynamic range

Scope of New Education Policy in Skill Enhancement of Students in Computer Science

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Abstract: As we all know that what computers are capable of in the current era. And after all we can't escape the need of the computers. Here comes the role of computer science. As all the modern industries are now run by computers hence a huge necessity of skilled computer science professionalism arises. The new education policy thus helps the students beginning in an early age to learn computer science and become familiar with it by applying their skills in application of computer science. The biggest hurdle for computer science students today is that they don't know the proper application of what they are learning. Hence this problem is solved in the new education policy.

Face Mask Detection System Using Machine Learning

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Abstract: We all are witnessing a pandemic, where in order to keep ourselves safe from the COVID 19 virus which has taken many lives till now and cases are increasing rapidly. Although the government has issued guidelines to protect us from this virus. We can only fight this by taking precautions. We constantly have to maintain social distance, wear masks and wash hands as many times as possible, but sometimes we fail to do so and. Our application helps identify these defaulters and helps in tracking them in real time. Defaulters inside of a public space get identified by cameras and to keep a check on it our application takes use of the existing surveillance system and with ease helps maintain the guidelines. Trusting our system, public spaces can be utilized with ease.

Keywords: Machine Learning, Artificial Intelligence, Python, PyQT5/PyQT4, DBMS, Natural Language Processing (NLP), Computer networking, Data

Fertilizer Recommendation Using Soil Test Kits and Modelling

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Abstract: In India the economy is very much based on agriculture yet we cannot make it profitable and use our land resources efficiently. The reason is the lack of knowledge about the soil. There are many types of soil available and each type of soil has different characteristics. It is therefore important to examine the characteristics of the soil. There are various tools available for soil analysis, but these tools do not always provide accurate and desirable results and the farmer needs to take the pain of visiting a laboratory to analyse the soil. But it is very complicated to test all types of soil accurately & precisely from the laboratory. And the available soil learning tools are not available in the regional language. There is therefore a need for a soil analysis tool that can be provided to the working peasants. This tool is in the regional language so that the farmer can easily understand it.

Keywords: Electrochemical Sensor, Fertilizer Recommendation, Raspberry pi, Soil Analysis, Soil Moisture Sensor.

Driver Drowsiness Detector

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Abstract: This document is a review report on the research conducted and the project made in the field of computer engineering to develop a system for driver drowsiness detection to prevent accidents from happening because of driver fatigue and sleepiness. The report proposed the results and solutions on the limited implementation of the various techniques that are introduced in the project. Whereas the implementation of the project gives the real-world idea of how the system works and what changes can be done in order to improve the utility of the overall system.

Keywords: Driver drowsiness; eye detection; yawn detection; blink pattern; fatigue.

Research Challenges of Blockchain in 6G Network

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Abstract: Nowadays, video calling is very much on demand, and it is working well in 4G and 5G networks. It is a time for 3D calling, virtual reality lives streaming, and holographic communication; Accessing this type of data requires ultra-high data rates and traffic volumes, so there is a need to speed up the network and increase bandwidth. On the other hand, a system has to maintain reliability, security, availability, and flexibility in a wireless network. The network should be extended to the needs of human life such as entertainment, healthcare, smart cities, and transportation expected to enhance service quality with a high-end user experience. To establish this network, the telecommunications infrastructure must upgrade its unmatched service level requirements. The two major disruptive emerging components in this modern Internet-enabled era of technology are both the blockchain and the Internet of Things (IoT). In research and industry, IoT has experienced exponential growth, although it suffers from several limitations, such as poor interoperability, decentralization, privacy, and security vulnerabilities. 6G applications can be based on telecommunications networks and IoT, therefore, the network must ensure strong connectivity between nodes and also ensure the privacy and security of user data. Blockchain is the appropriate solution for these issues. Blockchain is a distributed ledger technology and it enables many industries to exchange data over the Internet between trusted parties without using a central server. The blockchain facilitates verifiable, transparent, and secure digital asset transactions with proof of right and ownership. There is a need to identify the role of blockchain in 6G networks. This paper explores the challenges and opportunities related to blockchain for 6G networks, future application possibilities, and upcoming research directions.
Keywords: 6G, blockchain, communication, distributed ledger, Internet of Thing.

Movie Recommendation System

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Abstract: The suggestion process has now made it easier to find the things we need. Movie recommendation services aim to help movie buffs by deciding what film to watch without asking them to go through the time-consuming and perplexing process of choosing from thousands to millions of films. The aim of this paper is to reduce human effort by suggesting movies based on the interests of the consumer. To counter these concerns, we devised a paradigm that incorporates both a content-based and collective approach. It can yield more overt effects as compared to other systems that employ a content-based approach. Content-based recommendation systems hinder people's ability to learn more because they do not prescribe anything out of the box. Purchase history, search history, and other factors can all be taken into account. The machine learning five-star ranking datasets, on the other hand, will be included in our project to analyse the recommendation framework. The main challenges are to improve the filtering output's scalability, sparsity, and performance. We solve these concerns in our project by developing user- and content-based algorithms for recommendation systems. Through filtering user content, machine learning datasets may be used to predict user or entity scores, as previously stated. Any of the words used in this paper include movie recommendation, e-commerce, shared filtering, user preference, RMSD, and deep learning five-star ranking dataset. As a result, we've focused our efforts on creating a process that tackles these issues.

Deep Learning for Detection of Plant Disease

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Abstract: As a result of dramatic climate change and a lack of immunity in crops, crop diseases have increased dramatically in recent years. This leads to widespread crop and plant destruction, reducing cultivation and ultimately resulting in financial loss for farmers. Disease detection and treatment has become a major challenge due to the rapid spread of a wide variety of diseases and a lack of farmer awareness. If diseases are correctly analyzed and recognized early, yield losses can be avoided by using pesticides or their equivalents to reduce the effect of specific pathogens. Farmers can seek assistance from Kisan call centers, but they do not provide it. Even though correspondence is available 24 hours a day, seven days a week, it occasionally fails. Farmers are unable to quickly explain the infection if the need arises, necessitating an examination of the disease-affected zone's image. It's also worth noting that if crop production isn't up to par, there's a fair chance you won't be able to feed your family well. The texture and appearance of the leaves are identical, which aids in disease detection. Plants that have been affected by particular diseases may usually be identified, but they are difficult to spot when isolated from our vision. Without proper care and timely action, the entire construction site could become an ailment-infected zone, or all plants adjacent to each other could be influenced by disease-spreading methods. In this vein, advanced computer technology can be used to detect and diagnose plant diseases in advance. As a consequence, this problem can be solved using computer vision and deep learning. We propose a profound learning model which is trained on public data and images of healthy and diseased leaves of crops. The model achieves its objective through classification by the defect pattern of the images of diseased leaves.

Keywords: Deep learning, plant diseases, convolution of the neural networks.

AI Regulated E-Commerce Portal

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Abstract: An online shopping system is the one that allows a customer to place online orders for items and / or services from a store that caters to online customers. The online shopping system offers an online display of the goods and utilities and a corresponding delivery window for customer selected items. The system accepts delivery to the customer for the purchase of ordered item in response to the delivery time. When ordering goods, we offer a convenient shopping cart to hold selected items for purchase. All the items selected to be purchased are placed in a the shopping cart until the customer completes their virtual shopping trip. Virtual shopping carts can be checked at any time, and the content can be edited or removed at the customer's choice. With the help of Artificial Intelligence, traders understand a customer's requirements better and suggests related products at the right time An online shopping plan does not remain with the customer credit provider until the item selected by the customer is taken from the inventory to the final shopping cart and then finally the order is confirmed by customer after providing the necessary information like billing address, mode of payment etc. Thus, amendments to the order can be made anytime by the customer. In addition, features like wish-list, various filters to sort the selected items,customers-care window, exclusive offer window etc. is also provided to make customer's shopping experience more pleasant and memorable. Once a customer has decided to submit a purchase order, the customer can print the contents of the original shopping basket for a record with a copy of the transaction.

Keywords: Artificial Intelligence, virtual, transaction, shopping

Stock Prediction Using ARIMA

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Abstract: The Monthly Reports on Stock Worth Market states that it's not possible to forecast the long run worth of associate degree quality supported the data contained within the historical costs of associate degree quality. This implies that the trade goes like a stochastic process and so this makes foretelling not possible. moreover, money foretelling was a troublesome task because of the natural quality of The National economy. Target of this job were to employ computing (Artificial Intelligence) methodology to design and foresee the long run worth of a share market index. Three Artificial Intelligence methods, namely, Neural Networks (NN), Autoregressive Moving Average and neurofuzzy methods are enforced in foretelling a long run worth of a share market index supported its past worth data. Artificial intelligence and Machine Learning techniques have the authority to require into thought national economy intricacies and these are required as money statistic foretelling tools. One of the technique used to standard the AI techniques, namely, Autoregressive Moving Integrated Average (ARIMA) that is linear modelling method. The analysis was discharge on information acquired from the National Stock Exchange. The data taken was a series of past ending costs of the TCS Stock Data Index. The outcomes displayed that the ARIMA technique has the command to foretell the long run worth of the Index with a suitable precision.

Keywords: Money Foretelling, Stock Market Index, Neural Networks, Autoregressive Moving Average

Walmart Sales Forecasting using Machine Learning and Python

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Abstract: Predicting future sales for any company is one of the most important aspects of strategic planning. Walmart is the best example to work with as a beginner since it has the most retail data set. Also, Walmart used this sales prediction problem for recruitment purposes also. We would like to analyse how internal and external cause of one of the biggest companies in the US can strike their Weekly Sales in the future. Demand forecasting is the calculated requirement of products or services in the future on the basis of present and past data and different phases of the market. Since all organization faces the unknown future and we don't know in the future product demand. Hence, by exploring past data and current market data, we predict the future demand and manufacture of those goods which are more demanding in the near future. As a result of this, we are producing the required products in pursuance of the demand of the market in advance. We are going to use different machine learning models to test the accuracy and will finally train the whole data. Using linear regression and fit the training data into it. Accuracy is 8.88%. Extra trees regression model gives the best accuracy of 97.15%.

Keywords: Random Forests, Linear Regression, Decision Tree Classifier, Extra Trees, Sales Forecasting, Mean Absolute Error, Mean Squared Error.

Predicting the success of a Crowdfunding Project before it's release

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Abstract: We are living in a digital era, everything is digital and many individuals with creative minds tend to move to online crowdfunding platforms to generate funding for their projects. The crowdfunding funding platforms like Kickstarter, GoFundMe, Seedrs, etc are a great way of generating revenues but for new creative individuals, it could be a little hard as not all projects are successful. So to help the new creator we have tried to find the reasons for why a project is failed or successful and tried to devise a model that could predict the success and failure of a crowdfunding project based on different features. We have applied different classifier algorithms to understand the reasons or factors which lead a crowdfunding project to success or failure. We are using the Decision tree classifier algorithm which can predict with an accuracy of roughly around 92%. This could help the novice project creator and could assist them in the planning for their crowdfunding projects. The future work in the project is that we might need to tune the model again as human factors are something that we couldn't predict.

Keywords: Machine Learning, crowdfunding, Kickstarter [learning]: Concept Learning – Logistic Regression, SVC, Decision Tree Classifier.

Block Chain based E-Voting System

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Abstract: In past, we do not prefer e-voting system because of data security reasons. In India, we use Electronic Voting Machine (EVM) for voting which is manual voting system and also location dependent. Therefore, we propose the E-Voting system that uses the Blockchain to secure the votes of users and this system satisfies all legal terms and condition of users. We can use this system for multitasking. Block chain technologies provides us an unlimited source of application with high security. This cost low to cast this technology to worldwide.In this work, we build a brand new e-voting system which provide a well secure environment and bring out a correct result by using Blockchain system.

Keywords: blockchain, voting, COVID

Is Tribal India Ready To Go Cashless?

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Abstract: The fastest growing Indian economy is on the verge of its transition. The traditional moves of barter system are now modernized through digital revolution. Expansion in tele-communication sector has proved itself to be an accelerator, driving agro-based economy into digital structure of exchange. Subtraction of physical currency and addition of "e-agents "has constituted new family of players in financial market. Thereafter, the players have enough incubation in the urban sector to gloom, but when it comes to rural and tribal belts of the country, these "e-agents" gets affected by the fatal symptoms of illiteracy, lack of adaptability, unsound infrastructure, limited range of financial market and so on. The success rate of "Digital India "gradually declines when it actually meets the conditions of rural India. Facing the reality, a wide variety of measures have been undertaken, both at central and state level to create an optimum ecosystem for cashless transactions. Yet money is what money does. The pride of holding money's worth is still winning over the convenience of digital revolution. The underlying paper focuses on drafting a contrast between cashless economy and the reality of digital transactions in the scheduled Indian Territory.

Keywords: Cashless, Currency, Digital, E- agents

Cytometric Fingerprinting

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Abstract: This paper is an outline of an exploration paper dependent on cytometric fingerprinting. In this paper we will examine about the past examinations about cytometric fingerprinting. Essentially Human fingerprints is utilized to distinguishing proof imprints for unique mark check. Unique mark check alludes to genuineness of an individual by his finger impression. The client gives unique mark together character data. Fingerprints have been utilized in measurable examination for the identity of people since nineteenth century. It is currently evident that fingerprints can gives fundamentally more data about any people. The point of this examination paper is to audit different as of late work on cytometric fingerprinting and clarify in insights concerning cytometric fingerprinting stages bit by bit and give synopses of cytometric fingerprinting information base with attributes and types. The Biometrics system is a method or technology which identifies humans based on their physiology or behavioral characteristics. A Fingerprinting recognition is a biometrics method that has been broadly used in various applications because of its convincence in the system of identifying and verifying a human's identity.

Keywords: cytometric, figure prints, biometrics and clients.

Energy Efficient Routing in Wireless Sensor Networks

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Abstract: In wireless sensor networks, energy efficiency has become a major concern (WSN). The sensor networks are operated by batteries, and as a result, they die after a certain period of time. As a result, increasing the life span of sensor devices by improving data dissipation in an energy efficient manner remains a challenge. Unless a suitable sensor data flow management is introduced, data aggregation between sensor nodes is of no use. Clustering the sensor nodes is thought to be a good idea for extending the life span of WSNs. A solution to this issue is a Cluster Controller should be assigned to each cluster. The selection of cluster head (CH) in each cluster is regarded as the capable method for energy efficient routing in the clustering model, which minimises the transmission delay in the WSN. The key issue, however, was determining the best CH for ensuring prompt network service. Until now, more research efforts have been focused on resolving this problem while taking into account various constraints. This paper attempts to develop a new clustering model with optimal cluster head selection under this scenario by taking into account four major criteria: energy, delay, distance, and security.

Keywords: Wireless sensor networks, Energy efficiency, Neural network, Clustering, Energy Consumption, Reduction

Virtual Clinic - Best Practice Patients and Doctors During Covid-19

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Abstract: A web-based program is a virtual clinic. Where patients can consult their symptoms in the virtual world with physicians, psychologists, therapists, and other health professionals. No physical representation of the patient is required in the virtual clinic. It is much better during the examination if the disease does not require it as the obligatory diagnostic prerequisite. In this web-based VC design for functional and non - functional purposes and specifications. These criteria have been met through interviews that have semi-structured and open-ended questions on disease evaluation by medical practitioners. Finished questions concerning the evaluation by the experience of the disease. And it's a very open-source application that any user can link an issued share to a conference. During Covid-19, this virtual clinic was used. There have been many lockdown countries announced. This was only one option for the virtual clinic during covid-19. In developing the virtual clinical application, we were particularly concerned with the provision of services and the reliable, secure, and efficient storage of data. Here, the non-functional and functional requirements are proposed along with such clinic's design. Such requirements were collected depending on the input that medical practitioners have specified via interviews that had open ended and semi structured questions related to assessment of disease according to their experience.

Keyword: Covid-19, Architecture, Design, Specifications, Requirement, Performance, Security, Reliability, Virtual Clinic

MHD Blood Flow in Bifurcated Arteries Through Porous Medium With Uniform Heat Source for Carotid Body Tumor Treatments

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Abstract: In the present scenario carotid body tumors (CBT) are commonly treated by surgery, even heat transfer (other than normal high or low), blood flow rates and medium of flow is highly recommended to manage in case of non-invasive treatments. The fluid (MHD blood), which is Newtonian in nature, is flowing through bifurcated arteries having carotid body tumor through porous medium in presence of heat source. Blood contains fatty accumulation on blood cells, so it is assumed to be cause of porous medium. Rheology of bio fluid (blood) flowing through porous medium is developed mathematically. Transverse magnetic field is applied to the flow channel and external heat source is provided. Governing partial differential equations are solved using some transformations with suitable boundary conditions. Velocity profiles, resistance on walls, temperature distribution, and rate of heat transfer are calculated for various

parameters. Effect of porosity parameter is reported for both the axial velocity profile and wall shear stress. Behavior of Prandtl number (Pr), heat source parameter (S) and magnetic field parameter (M) on velocity profiles in presence of porosity parameter and temperature field is also noted. Numerical range of parameters is considered for analysis. The results are shown through graphs.

Keywords: bifurcated arteries, carotid body tumors, heat source, MHD blood flow, Porous medium.

E-Commerce Web Application Using React Js

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Abstract: Electronic commerce or E-Commerce is a way to do business online using a computer, mobile or electronic gadgets. Anyone with access to a computer or a mobile device can use the Internet to buy or sell goods. Electronic commerce (e-commerce) is a paradigm shift that affects both advertisers and consumers. E- commerce, on the other hand, is more than a means of altering current business practices. The traditional business model is undergoing a complete transformation. This significant shift in the business model has resulted in tremendous growth all over the world, including India. E- commerce has grown in popularity as a result of widespread internet use, and this option is increasingly being used by start-ups as a differentiating business model. Furthermore, E-Commerce has significant environmental consequences. The research strategy demonstrates the importance of e-commerce for business in developing countries. Several businesses have already had a lot of success. COVID-19 has had a huge impact on cross-border e-commerce. What was once a gentle slope has now become a steep incline. The rate of conversion has now reached a sharp and steep incline, necessitating the search for new approaches to increase the rate of conversion. In this context, web usability has taken center stage and is regarded as the most important factor. Any interactive application's quality and success are influenced by this factor. There is now a sizable body of knowledge dedicated to the usability of computer-based applications. Corporations who wish to be in the industry for a long time develop customer-satisfying habits and cultivate long-term partnerships. Consumers can shop more easily and safely, especially when shopping online, where the business specifies certain rules, the confidentiality of the roles of the parties, and customer information. In cases in which the product consumers wish to purchase does not fit the product online, problems occur or product details are inaccurate, contributing to consumer disappointment. In such cases, customers who have not had their needs met choose to return the goods they have purchased. As

a result, client satisfaction with return management is required, even as the value of distribution and logistics operations grows.

The project we are working on will be made up of React Js which is a library of JavaScript.

Keywords: React Js, Firebase, Stripe API, Heroku, Virtual DOM, Single Page Application

INN Management System

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Abstract: This project aims to create an INN Management System that can be used by Admin and customers. The manager advises / publishes the availability of rooms in various hotels and customers checking the availability of room for the required guest rooms. Customers should be able to know the availability of rooms on a specific day in order to be kept at the hostel. They should be able to reserve available rooms according to their need in advance in order to make their living comfortably comfortable. Admin submits customer booking details. Users can register and log in to the system. The manager will know the booking details and daily earnings. The hotel department oversees the availability of seats and booking details in a specific database. This project provides high security for Admin and user information. The main purpose of this paper is to design a hotel management system for running a hotel business. The system must be as flexible as possible to be used for various hotels / guests.

Keywords: Hotel, booking system, internet, online booking

IoT based Home Automation System Using Google Assistance & Blynk App

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Abstract: In recent times, human intervention has been significantly reduced with the help of Internet-of-Things devices. A better monitoring control and faster response is received with the help of this technology. Human machine interaction is increasing continuously and Internet-of-Things is a step ahead by connecting the smart objects with the internet and therefore making overall working easier. In this work, a cost effective, energy efficient and flexible design of home automation is proposed which connects and controls various home appliances using NodeMCU, Google assistance and Blynk app. It provides a helping hand for the old aged and for differently abled persons. Human intervention is significantly reduced and in case of emergencies it has detecting capabilities which make it more reliable. User friendliness is provided through Google Assistant using voice commands. Blynk application helps to connect through an app and by using IFTTT, user can create a customised command for each job for Google Assistant. Proposed design also take care of the gas, temperature and humidity of the house using DHT11; the temperature and humidity sensor and MQ02; which is a gas sensor. Values of these sensors are displayed in the application which is connected to the relay. NodeMCU has been used for connecting Blynk app. Blynk server has been configured with NodeMCU using authentication key and further Blynk server is connected to the webhooks server which acts as a broker. For connecting Google Assistant, IFTTT has been used using *IF-THEN* conditions.

Keywords: Home automation, ESP8266, Internet-of-Things, Smart home, Google assistance, Blynk app

An Approach to Countenance Recognition Employing a Machine Learning Algorithm

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Abstract: Besides the physical component, one thing is essential to every soul. Emotions are shown through constant facial expressions. FER technology has been more important in recent years and this is frequently explained by its use in many fields: psychology, engineering, neurology, and healthcare. The goal of this article is to identify various methods for recognizing facial expressions that have emerged in recent years.Any method for detecting and extracting facial expressions may likewise be used for the automated recognition of human emotions. When we are people, emotions communicate with lips or fail to engage socially. These human emotions shine beyond ethnic mosaics as well as their origins. Human facial expressions are obliged to acquire information that is hard to recognise through your lips. It directly correlates a person's state with his or her purpose or the physical exertion required to complete activities or what someone wants to do.

Keywords: Facial Expression Recognition System(FER), Independent Component Analysis (ICA), Convolution Neural Network (CNN)

An IoT Based Framework for Optimization of Home Appliances

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Abstract: Innovations in technology mostly emerge from the needs of human society. The 21st century is the era of prompt advancement in digital technology. Most of the developed technologies focused on proficient monitoring and controlling different activities. Everywhere from mega-structured building automation to small smart homes, big industrial assembly machinery to a kid's toy, a college research laboratory to an international space research center, and even health care service at a desk through wireless sensors and networks, wireless sensor networks (WSNs) have become fundamental and crucial devices. In this work, a cost-effective and energy-efficient smart home system is designed and implemented where users will have remote access and are capable of controlling & automating the electrical appliances in a room through an easy manageable User Interface (UI) with the integration of wireless sensor networks. The system is composed of hardware, communication, and electronic interfaces that work to integrate electrical devices. Hardware and software requirements are designed and developed. The proposed system is tested in real life scenario.

Keywords: Home Automation, Wireless Sensor Networks, Internet of Things

A Technique For Invoice Processing Using Robotic Processing Automation

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Abstract: RPA is enabling organizations to create Automated Processes for Repetitive Tasks. Automated invoice processing is the process of using software or AI for extracting data from invoices entering our system and pushing it into our ERP software to do billing in a few clicks. It can automatically identify and extract a good range of business values from our receipts and invoices. It is trained to understand real-world documents depending on the precise needs and requirements of your accounts payable and expense compliance processes. Smart technology can automate your process from purchase order to payment saving your significant time and money. Most importantly, within these workflows, you'll easily send your robots to input the extracted data into the right accounts payable or expense management back-end systems to finish the end-to-end automation of those processes. and then filter them consistent with their maturity and put those invoices into their respective excel sheets. Further the Excel sheet with expired Due Date are going to be sent to Respective Email Address. It can also identify and extract a good range of business values from your receipts and invoices, counting on the requirements and requirements of your accounts payable and expense compliance processes.

Keywords: Robotic Process Automation, Invoice Processing

A Cryptosystem analysis for text messages using Homomorphic Transform

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Abstract: The concerns that have been found and the action plans that have been recommended in this study are based on testing. The goal of this work is to provide actionable intelligence about the security of the cypher text we were given. Only in those circumstances where it was thought necessary, this threat intelligence report is based on analysis to validate the accuracy and authenticity of the information gathered. The tests carried out during the limited period for doing such an activity are mostly used to identify the issues in this work. Though the work has taken sufficient care to cover the principal scenarios, the analysis' result may not be exhaustive or represent all possibilities.

Keywords: *Homomorphic Transform, Cryptanalysis*

Machine Learning Based Hybrid Approach for Email Spam Detection

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Abstract: Spam e-mail is one that told the conspicuous crises in this growing world today and had caused a huge financial failure. Surprisingly Though the methods and techniques for this crisis are usually being refreshed regularly, the current system is not that much sensitive. The results of those approaches and techniques do not seem to be wise at the current time also email spam is developing in Association with an appealing degree of growth. Like this, only a lot of profitable fishing reorganization innovations Are the threat of phishing emails is expected to be eliminated. In this document, we will first look at the construction of the email so the email addresses. I Will try to have a different approach all over this paper with the data management ocr, Associated degree ANN to find spam email. To assess the suitability of ANN we got a tendency to use a Kaggle data set that has a less proportion of spammed emails and real emails. The beta Outputs show that the positive yield of ANN appear at the ratio of 97.5 8% then the FPR is 0.03 3% higher perfection and low perfection of FPR promises that the modification Could be able to distinguish in the phishing emails with high likelihood. And even modifying can authenticate emails as A's near Agar as could also be extracted below the circumstances. Such promising outcomes is best than this reorganization technique. And it collectively works on the HTML-based templates emails that are hard to find and makes sure the suitability of ANN in typical spammed emails.

Keywords: ANN, Optimization, Spam, phishing, OCR, Template Email reorganization, Hybrid approach.

Analysis of Text Encryption Techniques Based on Homomorphic Transform

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Abstract: Data Security: The incidence of data breach and abuse have shown a tremendous increase in the recent past. The occurrence of such breaches has led to the need of highly secure data security algorithms/process/program. In technical terms, the data security refers to provision of a secure environment to datasets, web-based datasets, and preventing unauthorized access to the data without the owner's permission. The widest and most secure form of data security is encryption, which involves digital encryption of data. With encryption, the hackers or unauthorized users does not have access to the data and/or is only available in unreadable format to them. To increase the reliability of security, each data set has a unique key that can encrypt or decrypt the data, as and when required. The following study owes to provide efficient cryptography process to secure data even during communication. The result of the proposed method indicates under any condition, the ciphertext will always be the same for each input, but the encryption key will be dynamic each time, because of this uniqueness the encryption is complex to decode.

Keywords: *Data security, cryptography, Hadamard Transform, Fast Fourier Transform, Homomorphic Transform*

Machine Learning Based Approach Using XGboost for Heart Stroke Prediction

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Abstract: Many prediction methods are widely used in clinical decision-making to predict the prevalence of diseases or diagnoses, assess the prognosis or outcome of diseases, and help doctors treat diseases. However, traditional predictive models or methods are not enough to effectively collect basic data because they cannot simulate the quality of mapping the negative attributes of the medical field. This analysis proposes an analysis method for stroke prediction using a deep learning model applied to the central disease data set. Heart disease patients are the main risk factors for stroke and have common variables in predicting stroke. The results of this analysis are more accurate than the current medical scoring system used to prevent heart disease patients when they are confident that they will have a stroke.

Keywords: Machine learning, Stroke, Risk level classification, XGBoost

Monitoring Water Quality Using the Internet of Things (IoT)

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Abstract: A water quality monitoring system is still the most effective way for the use of certain hazardous to water. Drink plenty of water, in the recent time's people all over the world, as a result of the problems, such as high population density and less water. They do water distribution I fixed it in a safe manner they should monitor it provides real-time monitoring of water quality and its control, with the aid of the collection of information, and transmission techniques for the proper growth of your wireless network technologies for the IoT. The measured values of the sensor, sensors will be affected by the micro-controller and processed by the main controller ARM with Wi-Fi protocol. This calculated water quality observance gets involved with sensors and quality observations in the IoT. WQM will detect it and send the water-related parameters, such as water temperature, water pressure, PH level, water level CO_2. After this, it sent the collected data to the webserver. When the sensors are not functioning properly or have incorrect readings or the occurrence of unusual circumstances, it turned the alarm. Also, the data will be stored on a webserver that is updated regularly and can be accessed from everywhere in the world.

Keywords: Internet of Things (IoT), Wi-Fi, Parameters of Water, Water Resources, Health care.

Alpha-Beta Pruning in Mini-Max Algorithm –An Optimized Approach for a Connect-4 Game

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Abstract: More than six decades after the term "Artificial Intelligence" was coined by John McCarthy to describe intelligent behavior displayed by machines, finally the technology enabled world with automation in every aspect of human life is becoming a reality. Artificial intelligence (AI) is used to describe the intelligence displayed by machines, which defers from the intelligence displayed by humans and other animals often referred to as Natural Intelligence (NI). Right from the inception of AI, game playing has been an area of research. One of the first examples of AI being employed in game playing was the computer game of Nim which was developed in 1951 and published in 1952. After that AI has been used in many computer games like Chess, Tic-tac- toe, and Connect-4. The game of Connect-4 was first solved by James Dow Allen in 1988. Connect-4 Gaming Portal using Adversarial Search (Artificial Intelligence), provides an online interface to the zero sum, perfect information strategy game of Connect 4.

Keywords: Connect-4 Game, AI techniques, Real-time System.

Air Pollution Forecasting using Machine Learning and Deep Learning Techniques

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Abstract: Customary air contamination forecast strategies have restrictions. Nonetheless, there are various AI approaches which are best for handling such issues present at the hands. As the impact of AI innovations is quickly expanding and entering practically in each field, air contamination forecast isn't being avoided from those fields. In this paper air contamination information, explicitly particulate matter of under 2.5 Micro meters (PM2.5) was gathered from an assortment of online assets and following, information purging examined with various AI models.

Reduced Wait Time Mechanism at a Signalized Traffic Junction using IoT and FIS

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Abstract: Conventional means of handling the traffic at signalized intersections are not enough as these systems require huge cost and man power. Dynamic signal controlling is all about alleviating the congestion at the intersections and reducing the delay. In context to this control, a few proposals in terms of use of inductive loop detection, infrared sensors etc, and artificial intelligence based techniques have been presented to reduce the level of congestion in urban areas, but still we find enough possibility of modeling a real time traffic scenario based on soft computing techniques such as fuzzy logic and genetic algorithm (GA) etc. In this work, we have utilized fuzzy logic for modeling a traffic scenario using two significant parameters. The model is designed in perspective to real time traffic demands. We have evaluated the performance of proposed model in comparison to fixed time system in terms of average delay experienced by the vehicles at the intersections. It is observed that the proposed model provides an average percentage improvement of 11.26% in average delay by judiciously adjusting the green time as per the traffic requirements.

Keywords: Average Delay, Fixed Time, Equated Monthly Instalment, Green Time, Carbon dioxide (CO_2)

Voice Based E-Mail For Visually Challenged

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Abstract: We have already seen that, with the advent of the Internet radically changed a lot of things in the industry. The Internet has made it much easier for people today to get the information they need to have at home. One of the most important schools of the Internet, and the changes that have been made in the communication. And when it comes to the Internet, communication is the first thing that comes to mind is the e - mail. E-mail may be considered to be the most reliable form of communication over the Internet, and send and receive some important information. However, this is a special process that people have access to the Internet, and this is how it should look like. You have to ask yourself is what kind of process is a person who has eyes to see. However, there are also people with disabilities, and, in particular, in our community, and who have not been treated to some of you. Yes, there are a few people, the disabled, or blind, those who cannot see and therefore can't look at a computer screen and keyboard. The most important advantage of this utility is that it is the use of the keyboard is not completely ruled out, the user will only have to answer by voice-of-the-mouse-click away. Now you must be wondering how a blind person in the right position on the screen at the click of a mouse. But with this program, you will take action on the basis of only a selection, left-click or right-click with the right mouse button, it doesn't depend on the area of the screen where the mouse cursor is next to the click, it gives the user the freedom to blindly click anywhere on the screen.

Keywords: IVR, Communication, voice based, Internet.

School Management System

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Abstract: We are make this project to help user friendly. In this project the on the School management. In the this project user can see the details of all about the school details in the web site. Administrator can add the details of the students, staff details, & online admission details On The Webservers This project is very useful to the any type of school manage & store the all types of details on the web servers without any paper work. With the help of this project any one can access the details of the school & if any one student want to know about the courses of this school than they can see without visiting the school & without wasting their time. If they are interested in the course than they can fill out the application form and also book an appointment for the further procedure for their admission. We also added some support feature for students parents and guardians to see what their childern doing in the school and how their performing in the school activates and studies and also there is an complaint section parents wants to send us any information about their children. If any one user want to contact to the administrator or manager of the school or get the details of the contact number & addresses know in the contact us page & user can contact the administrator using this page. This System Is Enough capable to handle the student's progress report, their daily objectives and their attendances for the particular subjects and it also can handle the entire staff works progress workloads and can determine attendance to for their respective staff.

Design and Implementation of Text Encryption for Lower Bandwidth Channels Using Homomorphic Transform

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Abstract: Data security is critical for businesses of all sizes and types in the IT industry. Data security refers to the provision of secure data privacy protections to databases and websites, as well as the prevention of unwanted data access. Encryption is a critical data security approach in which unauthorised people or hackers gain access to unreadable material by encrypting digital data, software/hardware, and hard drives. Computing processes generate data, which is then encrypted and sent into the network using the key. Unauthorized users or hackers cannot read encrypted data, but it can be decrypted with the appropriate key. RC4, Blowfish, AES, and DES are some of the methods for generating keys and encrypting data. The above approaches' algorithm speed is determined by the key generation for the cryptographic process, and the key generation is the fundamental issue. This work proposed and effective encryption approach for low bandwidth channel.

Keywords: Data security, cryptography, Homomorphic Transform

Student Information System

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Abstract: With the help of Student Information System (SIS), student information can be stored and maintenance can be done. It is useful for educational institutions to maintain the records of students. The storage and management of information regarding a students' academics is crucial in any institution. This system can be useful for all types of details, academic reports, institutional details, curriculum, and other resource as well. Student Information System software is very essential nowadays for all the educational institutions to store the information of students. For storing the student data, the institutions are spending a lot of money on paper, files, and other stationary stuffs including pens/pencil etc or some institutions are purchasing expensive systems to do this stuff. But here we are just creating software for the similar work it can save a lot of expenditure of an institution and also it will save use of papers which is ultimately beneficial for our environment also. This system is very useful to sort and search student records, because sorting and searching in file system is time consuming and also difficult to conduct manually. This software is developed in such a way that it remains to be user centric and easily understandable and usable by the user. The software is fully functional and tested over several testing techniques available and the software is functioning smoothly.

Keywords: Admin Login, Student Login, Add Student, View Student, Registration, Update Profile

A Review on Internet of Things (IoT)

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Abstract: The increasing interest in Internet-of-Things (IoT) technologies has created a need for a comprehensive literature survey. This article reviews the major developments done in the progress of IoT technology, along with related definitions, applications, and information about the manufacturing of its components. The challenges associated with IoT technology and possible solutions are examined, and the energy factors that contribute to a customer's electricity bill are discussed. A number of price schemes and the load models needed for solving related scheduling optimization problems are also presented, including a review of the literature related to energy management system scheduling with respect to its control, automation, and communication.

IoT Vision, Applications, Challenges, and Future Opportunities

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Abstract: The Internet-of-Things (IoT) allows setting up a centralized network of interconnected devices that can generate and exchange data within a single framework which can also be tracked and gathered in real time. It has helped to connect the whole ecosystem closer to the technology and internet. It is one of the most promising technologies in terms of managing, monitoring, controlling smart objects connected with the internet. Human intervention has significantly been reduced with the help of IoT. A better monitoring control and faster response can be received. Human machine interaction has been increasing continuously and IoT is a step ahead by connecting the smart objects with the internet making overall working easier. Today IoT is been used in all major and minor fields, be it home automation, smart agriculture, smart hospital, smart watch etc. In this work, a detailed discussion and analysis has been done over the IoT vision and its upcoming applications which were not thought earlier. Challenges and future opportunities are discussed with respect to the hardware support and relative software needs from information technology industry' point of view.

Keywords: ESP8266, Internet-of-Things, Google assistance, Blynk app.

A Review Paper on Identification and Selection of Parameters in Friction Drilling and Form Threading Process on Various Materials

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Abstract: Thermal drilling and form drilling for sheet metals and hollow tubes are now widely used in the manufacturing and automotive industries. Thermal drilling and form drilling are currently most extensively used in mass production areas. This is a review study on the design and manufacture of a form threading tool for friction drilled holes, with the goal of investigating the comparative analysis of friction drilled hole form threading on various materials using a thermal drilling tool. Friction drilling is done on a variety of materials, such as square and circular tubes, using a thermal drilling process that uses heat generated between the metallic plate and the tungsten carbide tool that make the metallic plate in plastic state, which is then extruded to form bosses and bushes, which are commonly used in sheet metal operations in industry. For the form threading operation, the bushing depth is used. In the industry, naturally formed bush is becoming more popular. Spindle speed and thickness to diameter ratio of thermal drilled holes are the two important key elements that influence the process.

Keywords: Bushlength,hardness, material type, temperature

An Improved Cryptographic Technique Using Homomorphic Transform

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Abstract: The current time has seen a major boom in the digitalization of information over various platforms varying from web, applications, internet, portals. The digitalization of banking domain, tele medicine, crypto currency, social media has made the information of personal at a high risk. The data of anyone can be retrieved by many methods, such as brute force and cryptographic analysis can be used to retrieve the message and key. This has led to the need of data security, requiring the information more and more secure with improvised form of existing technology so such kind of attacks can be avoided. This study is based on generating an efficient cryptographic approach which can protect the text message. Results show that for various file sizes ranging from 2.5 MB to 23.3 MB the proposed approach gives a minimum of 54% improvement compared to AES. The execution time of the proposed is algorithm is better than available algorithms like DES, 3DES, AES, Blowfish, and RSA, below 1 MB data size. The limitation is felt when the data size is beyond 1 MB data size as the algorithm takes a longer execution time.

Keyword: Homomorphic Transform, Text Encryption, Text Decryption, Hadamard Transfor

Blood bank

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Abstract: This paper present the Blood Bank Management System. A Blood Bank Management System can be used in any clinic, hospital, labs or any emergency situation which requires blood units for survival. Our system can be used to find required amount of blood in emergency situations from either blood bank or even blood donors. Current system uses a grapevine communication for finding blood in cases of emergency, may it be by a donor or blood bank. The intentions of proposing such a system is to abolish the panic caused during an emergency due to unavailability of blood.

Keywords: Donor, Recipient, Cloud Computing, Transfusion, Repository, Cloud Server.

Online Parking System Using A.I.

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Abstract: Parking system in India need to be solve. It is difficult for a common person to find a vacant place for Parking. So, there must be some system to manage this problem. Hence, we came with an idea in the form of our project. our project is composed in two parts. In the first one we will design a web software which will help in bringing the parking lots online. In this there will be two data base app or websites (one for the user and other for the retailer). The user can book vacant place for their vehicles and the retailer can provide the vacant place by the help of this apian the second part of the project we will work on the software (using A.I. and machine learning). This software helps in automation of parking lots. We can install this software in the cameras so that it can find the vacant place for the user. And also, these cameras are very helpful in high traffic areas to reduce traffic.

Keywords: vacant, Ai and machine learning, Installing, automation, parking IoT.

An Improved Congestion Control Mechanism using Fuzzy Inference System

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Abstract: In today's scenario, the exponential rise of population in many countries is proportionally increasing the number of vehicles which further leads to problem of traffic congestion at the traffic intersections. Although, the transportation system comprises of modernized well planned infrastructure with good administration, but still the travelling time, people safety and environment are badly affected by the congestion. Conventional systems used for traffic handling have limited scope in terms of man power shortage, cost considerations and are only confined to stable or static traffic conditions. Various control approaches based on fuzzy logic, genetic algorithm and neural network have been proposed in literature. However, scope of some significant effort over existing approaches in terms of Intelligent Transportation system (ITS) based on the adaptive behaviour exists in the system which can overcome the aforesaid issues. So, we have proposed a fuzzy based traffic model for controlling the traffic at the intersection which would take the decision of extension or reduction in green time of traffic lights and also, computed the significance of the parameters used. We have modelled the system using two input parameters i.e. Arrival Rate and Waiting Time. The average percentage improvement of 23.64% is observed in average delay experienced by the waiting vehicles for the proposed model as compared to its fixed time counterpart.

Keywords: Fuzzy, Traffic Control, Fixed Time, Green light Extension/Reduction

Impact of Self Driving Car on Human Life

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Abstract: Rapid advances in self-driving technology raise the question of suitable operating models for future self-driving vehicles. A key factor in the efficiency of such business models is the competitiveness of their cost structure. With a comprehensive analysis of the relevant cost structure, these studies show that public transport (in its current form) will only remain economically competitive as demand can be put into larger units. This is especially true of densely populated areas, where public transport can be offered at a lower price than independent taxis (even if combined) and private cars. Where significant interconnection is not possible, shared and interconnected vehicles meet travel needs more effectively. However, contrary to popular belief, a joint fleet may not be the most efficient alternative. Higher costs and more effort in cleaning vehicles can change this equation. Moreover, the results indicate that a significant proportion of vehicles can remain privately owned and operated due to their low variable costs. Even more than today, the high fixed costs of private vehicles will continue to be acceptable given the various advantages of a private mobile robot.

Internet of Things (IoT) for Next-Generation Smart Systems

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Abstract: The Internet of Things, also called The Internet of Objects, refers to a wireless network between objects. By embedding short-range mobile transceivers into a wide array of additional gadgets and everyday items, enabling new forms of communication between people and things, and between things themselves. IoT has given any time, any place connectivity for anyone, to now connectivity for anything. Industrial IoT is a major part of IoT, which is used across several industries, such as manufacturing (Industry 4.0), logistics, oil and gas, transportation, energy/utilities, mining and metals, aviation and other industrial sectors and the use cases which are typical to these industries. The industrial IoT market is estimated to reach $123.89 Billion by 2022. In this work IoT applications related to industrial IoT are analyzed and a critical evaluation is done from cost versus facilities point of view. Challenges and future opportunities are discussed with respect to the hardware support and relative software needs from information technology industry' point of view.

Graph Preserving Geraghty Type (alpha – V) Ƒ-G Contraction Mappings and Some Related Fixed Point Theorems

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Abstract: In this article, we define the geraghty type ( )-Ƒ-G contraction type mapping in modular metric spaces and prove some fixed point theorems for these kind of contractive mappings. Furthermore, we establish an example in order to support of our theoretical results. Also, some consequences of these results are considered in the fuzzy metric spaces. Our results generalize, improve and complement several approaches in the existing literature.

Keywords: Geraghty type ( )-Ƒ-G contraction, modular metric spaces, fixed point and graph.

Automated Canteen System

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Abstract: In this paper user can select the thing from the shown E-menu and hence the client can utilize online canteen android application. After selecting nourishment thing from E-menu show by the client it'll specifically see on the screen on canteen to the chef. The application is created utilizing the android studio and the well performing in great internet speed. The canteen system is employed for reading the food items in the application. This application helps that when there are waiting queue the waiting is diminished and we are able to say that the clients are invalidated. The benefits of this are often regularly that if there's a rush within the canteen at that point there'll be alter that the server is attending to be inaccessible and so the client can specifically arrange the nourishment to the chef on-line by the utilize of this application. The client will have username and watchword, by utilizing which they will login into the framework. User can give feedback on the food items and the services provided by the canteen staff members in online ordering. Manual system includes paper run through maintaining different documents and manuals. Keeping up basic food items in canteen within the records and manuals is filled with hazard and dull prepare. Counting a framework illustrating to utilize Web innovation continuously as abilities and certainty develop, the venture appears the course from adjusting materials to putting together up a web environment.

Generation of Music Using LSTM Recurrent Neural Networks

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Abstract: AI calculations have progressively been carried out in an assortment of ways inside the music area. In this paper, a Long Short Term Memory Network (LSTM) was utilized to tackle the music-related issue of arrangement. The organization was prepared on "Ryan's Mammoth Assortment of Fiddle Tunes" which was gotten from the music21 corpus. Past endeavors to produce tunes utilizing neural organizations have experienced an absence of "worldwide coherency". All organizations had the option to learn key. The 256-time step network delivered tunes that were the most worldwide intelligent, anyway the PC produced tunes were not decided to be as worldwide intelligent as the tunes in the preparation set.

Unique Identification Through Colour Extraction (3D Model)

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Abstract: This proposal is about identifying baggage uniquely by its features and colors. We have seen a lot of identifications of a person by their facial features but we have never worked on identifying materialized objects which do not contain many unique features. So we are developing a product by which we will be able to take images of the target as input and then we will extract all the possible features and all the colors out of it. Then we will apply our model on some n number of videos and after the complete analysis, we will be able to tell that which video file that object (bag in our case) was detected. It will also provide the exact time at which the object was detected with a precision of a minute. The application can further be used and integrated with identification systems or security systems, like tracking criminal's bags or finding lost bags. This application will further be capable of integrating with any other technologies like IoT devices or mobile apps etc.

Index Terms: Computer Vision, Deep Learning, Image Processing, Python, Storing features.

QR Code Generator

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Abstract: QR code generator will generate code for those who want to generate a QR code and don't have any idea about it. Also, the project provides the person a guidance depending on its current location entered by the phone user. By the way QR code was invented by the automotive industry, a Japanese company Toyota asked their supplier Denso to develop a barcode to safely and easily identify components. QR generators were originally used in industrial applications. Therefore, they had to be easily printable in form and size as well as staying legible when partially destroyed or dirty. This project is mainly beneficial for the those having no idea about the QR codes they want to generate. This proposed application does not require any high speed internet access and thus eliminates the disadvantage of single point failure. This application has many advantages as the user can generate the required code according to his/her choice and accordingly find the time that will be required to reach the required destination. The application will give the basic details that will be required to know about the place such as an image of that place along with basic details like the address, contact no, charges etc. Also, it will provide information about many other things too where a person can choose according to their choice.

TherapGuruJi: A live interaction to human emotions

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Abstract: The shape of a person's face conveys more detail about appearance than is clearly defined. Facial features detection plays a crucial role for the world of human to machine interactions. The automated facial recognition system has several onboard applications together with, however that not restricted to, human behavior of forming an understanding to it, discovering of mental disorders, and AI of human expressions. Thus recognition of facial features through electronic devices with a high recognition rate remains a daunting job. Throughout the process we have used a number of ways (convolutional neural network) to detect the 7 main human expression/emotions: happy, anger, disgust, sadness, surprise and neutral norms.

An Approach To Countenance Recognition Employing A Machine Learning Algorithm

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Abstract: Apart from the somatic aspect here is one thing every soul shares fundamentally-emotions. Emotions are exhibited through consistent facial expressions. In recent years, FER technology has gained importance, and this is often justified by the applications in several domains: psychology, engineering, neuroscience, healthcare. The motive of this paper is to spot different approaches for face expression recognition within the past few years. Any system which allows for detection, extraction also as evaluation of those facial expressions does serve for automatic recognition of human emotions. As we individuals interact socially but emotions speaks what lips can't or failed. These human emotions outshine ethnic mosaic and also the origin. Human facial expressions are bound for fetching those necessary knowledge, which is tough to admit by the lips. It provides the psychological state of someone that directly consort to his/her intention or the physical efforts that are needed for performing tasks or what someone wants to do.

Keywords: Facial Expression Recognition System(FER), Independent Component Analysis (ICA), Convolution Neural Network (CNN)

Artificial Intelligence Based Intelligent Tourism System-Go My Way

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Abstract: At present, we have seen that the tourists tend to spend more time in planning their trip, because they have to spend each and every minute of it. In this context, the application of which is intended for basic information about the need for economic development, tourism, and advertising, which I will offer to you through the mobile apps. Nowadays, ordinary tourists and Travellers to spend a lot of time to plan and make decisions about their travel in order to reach the maximum level of satisfaction. In this case, the program is designed to identify the most critical areas of need to support the development of tourism in the area. This paper proposes a model of intelligent information systems in the Internet. It uses the concept of a knowledge base. The model is based on the study of human behavior as a tourist guide. It is based on the relationship between information systems and management in order to provide the service to any person who meets the specific needs and the purpose of the site. In this thesis, is that because there are a variety of modules, a variety of acquisition methods, techniques, and is a short way to get creative in artificial intelligence. The proposed system should be designed so that it works on most devices, namely, handheld device or mobile phone. So, it can be useful when you are travelling to a new place. With this app you can find your way with the help of the special terms and conditions. In the short term, the search for a method, the algorithm is going to work well and correctly, in most of the cases. The system has to find a way to abide by the following terms and conditions: the user's name that is the subject of the research, the photos associated with a short description of the place. It should also be possible to find, in the distance, the time and cost of travel to reach your destination, and the user, and are able to just place an order for orders placed with the help of the software interface.

Keywords: Artificial Intelligence, Random, Fashion, Algorithm, Intelligent Navigation, Waypoints, Edit, Or Recommendation of The Program's Users.

Comparative Analysis of Parallel and Distributed Databases

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Abstract: In current years, Distributed and Parallel Database systems became necessary for applications which use information in an exhaustive manner. The prominence of those databases are growing quickly thanks to the increasing data in the system and organizations. We are faced with a situation where we need to process large amounts of data which requires us to have systems that can handle it. Centralized architectures have several difficulties or complications which can be solved using distributed databases which handle data processing much more effectively. Parallel databases are structured in a way that they increase performance and availability efficiently. It amplifies throughput, response time and flexibility of data. In this research paper we have illustrated an analysis of the distributed Database Management System and parallel Database Management System technologies, focusing the issues of each one of them individually, and distinguishing the similarities among them.

Keywords: Parallel Database, Distributed Database and Database Management System

Blockchain & QR Code Technology-Based Secure and Quick Vehicle Identification And Authentication System For Indian Traffic Police

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Abstract: The traditional Indian traffic police system for verifying and validating vehicle documents on the roadside has been digitized and secured. In India, there is no safe and fast system in use to get all information on a particular vehicle from Indian traffic police. To overcome this problem, we design and create an application that allows Indian traffic police to get all information about a vehicle, including its owner driving license, RC book, insurance status, vehicle emission status, by simply scanning the vehicle's QR code. To reduce the risk of data tampering, we focused on data authentication and used blockchain to create a decentralized, secure, and fast framework. In this paper, we design a scanning application, classifying and supplying the information and documents stored against it, and the existing procedure for verifying and validating vehicle documents on the roadside used by the Indian road traffic police. We also evaluate the performance of this application by analyzing the impact of light illumination and distance factors on the QR code recognition process.

Index Terms: QR code, decentralized, blockchain, RC book, framework.

Internet of Things in Healthcare and Medical Science

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Abstract: In the current era, there is a requirement of a system with connected devices, persons, time, places and networks, which is completely incorporated in what is called as Internet of Things (IoT). IoT has been implemented in various domains such as agriculture, healthcare, industries, home automation, environment monitoring, smart tourism, etc. IoT has been implemented in the field of healthcare with various applications leading to the introduction of new technologies like Radio Frequency Identification (RFID), sensors, Nano-technology and many more. Internet of Things has become the ultimate building blocks in the development of healthcare monitoring system. The aim of an efficient IoT healthcare system is to provide real time remote monitoring of patient health condition, to prevent the critical patient conditions and to improve the quality of life through smart IoT surroundings. New challenges have been introduced with IoT for the security of systems and processes and also with the privacy issues of person's medical data. There are some of the challenges that IoT can help to solve: break geographic barriers, providing rapid clinical responses, medical consultation and communication links of medical images and video data. A unique ontology for all things among IoT-based healthcare. There are a lot of applications in the healthcare field, including the possibility of using smartphone capabilities as a platform for monitoring of medical parameters that advise patients of medical issues. Moreover, it would lead to a great development in the field of healthcare. In this paper, we have proposed a methodology to track the intake of medicine for Tuberculosis (Tb) patients using an IoT device.

Keywords – 'Internet of Things (IoT)', 'RFID', 'Healthcare', 'Nano-technology', '99DOTS', 'Tuberculosis'.

AR & VR – Evolution and the Future

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Abstract: Augmented reality and Virtual reality advances are getting progressively mainstream. Expanded Reality has so far substantiated itself, particularly in portable applications, with games like Pokémon Go or the new Google Maps utility being a portion of its diplomats. Then again, computer generated reality is getting well known primarily because of the computer game industry and less expensive gadgets. What at first stayed ineffective in the mechanical area has re-emerged as of late on account of innovative progressions in handling gadgets and equipment. In this theory, a top to bottom investigation of the different fields where expanded reality and augmented reality are utilized. This investigation centres around directing a top to bottom survey of the extent of this new innovation, examining how every innovation has developed in the course of recent years in the primary classifications and the nations generally engaged with these advances. All in all, we will examine the future patterns of this innovation and the regions where exploration is expected to additionally coordinate this innovation into society.

Keywords: Virtual reality, Augmented reality, digital environment

Changing Healthcare Industry Using Technologies Like Artificial Intelligence, Internet of Things, Holograms

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Abstract: Noticing the Novel Coronavirus (COVID-19) pandemic, we'll examination how AI and IoT can adjustment the medical services business. These days patient's associations with specialists square measure limited in this manner, we will in general square measure having the chance to investigate the holographic strategy for connection with the patients, a holographic technique for justification, and furthermore the AI, the IoT-empowered gadgets have made distant perception inside the guide area feasible, releasing the possibility to remain patients protected and solid, and enabling doctors to convey standout care. it's furthermore increased patient commitment and fulfilment as associations with specialists got simpler and extra prudent. also, far off the perception of a patient's well-being helps in diminishing the length of the clinic keep and forestalls reconfirmations and how the holographic method of cooperation is valuable.

Keywords: Artificial intelligence, Internet of Things, Clinical decision support, Electronic health record systems, Hologram, Holography, Smart band.

VAR Home Cloud Service

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Abstract: Cloud computing may be a quite service that permits users and corporations to store and access data over the web instead of storing it on a computer hard disc .The data are often anything like files, images, documents, audio, video, and more. Cloud computing may be a vitalization-based technology that permits us to make, organize, and customize applications via an online linking. Cloud computing may be a very popular field at the present which is rising in no time and therefore the way forward for the sector looks really wide. With advanced focus on cloud computing as a possible answer for a versatile, on- request computing structure for many uses, many companies and mergers have started using it. Cloud computing may be a recent buzzword within the IT world. The word cloud states to a link or the web. It's a technology that uses isolated servers on the web to store, manage, and access data online in its place of local drives. The info are often anything like files, images, documents, audio, video, and more. And with the rise of knowledge usage over time, it's pretty hard to store great deal of knowledge and access it easily. So we've come to the fore with an innovative service of Home Cloud, where you'll store your data seamlessly and efficiently. Gone are the times to pay big companies Like Google and Amazon for using their cloud services and still be susceptible to data breaches. Just buy a storage plan and pay just one occasion as per your need and obtain it setup at your home.

Keywords: Home cloud service, wifi router, Raspberry Pi

Digital Workaholics: A Click Away

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Abstract: In today's world, Artificial Intelligence (AI) has become an integral part of human life. There are many applications of AI such as Chatbot, network security, complex problem solving, assistants, and many such. Artificial Intelligence is designed to have cognitive intelligence which learns from its experience to take future decisions. A virtual assistant is also an example of cognitive intelligence. Virtual assistant implies the AI operated program which can assist you to reply to your query or virtually do something for you. Currently, the virtual assistant is used for personal and professional use. Most of the virtual assistant is device-dependent and is bind to a single user or device. It recognizes only one user. Our project proposes an Assistant that is not a device bind. It can recognize the user using facial recognition. It can be operated from any platform. It should recognize and interact with the user. Moreover, virtual assistants can be used in many areas of applications such as education, medical,vechicles, robotics, home automation as well as security access control*.*

Keywords: Artificial Intelligence, Cognitive Intelligence, Virtual Assistant, Facial Recognition, Chatbot

E-Commerce Shopping Cart

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Abstract: The business and consumer aspect of online shopping is the visible use of the World Wide Web. The main purpose of an online shopping site is to sell goods and services online. This project is aimed at building an e-commerce website for online shopping. Provides the user with a catalog of various goods and services available for purchase in the store. To facilitate online shopping the shopping cart is provided by the user. The program is implemented using 3 methods, with a backend database, an intermediate section of Microsoft Internet Information Services (MIIS) and PHP, and a web browser as a previous client. In order to develop an e-commerce website for online shopping, more technologies need to be read and understood. These include multi-component formats, client side writing techniques, implementation technologies such as ASP.NET, programming language (such as C #, VB.NET), data information (such as MySQL, Access). This project is for the purpose of building a basic website where the consumer is given a shopping cart request and knowledge of the technology used to make such a plan. This article will discuss some of the basic technologies for creating and using an online e-commerce website shopping.

Price Prediction of Apartments Using Machine Learning

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Abstract: Machine Learning is a very powerful tools and is used nowadays almost everywhere. In this project we are using a dataset which contains different features of an apartment and its locality like no. of beds, distance from various nearest districts, crime rate, no. of hospital beds, rainfall and various other attributes and based on these attributes there is a price given for each apartment. So, we will be creating a Linear Regression model and will be training it on this dataset. The model will be able to predict the price of an apartment based on its different attributes.

Keywords: Regression, machine learning, data science

Development Of An Android Application For Viewing Covid-19 Information In India

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Abstract: The Entire world is facing Covid-19 pandemic Second Wave. In 2020 we all are Face covid-19 pandemic first time. In India Second wave of covid-19 much dangerous because virus are more infectious than first wave since March 2021 the number of Covid-19 Cases are suddenly increase and in first week of May Cases hits 4 lakh per day and death cases are also increases. Indian government give guideline to wear double or N95 mask, sanitize hand time to time and do yoga daily related to respiratory system. After taking all precaution and follow all guideline to control covid19 spread the number of new covid-19 cases increase then government have last option to lockdown have been imposed. And the people are worried about covid-19 information So we are develop an Android application for Indian people that can track the covid-19 information with Vaccine doses administered in India

    Keywords: Covid-19, Android, Vaccine, Pandemic

Capstone Project Rock-Paper-Scissor Game

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Abstract: Rock Paper Scissors is used to resolve conflict when a compromise is not possible. Individuals playing ''games'' tend to have biases they prefer to play. I will show here that (Rock-Paper-Scissors) with biased party/team/individual player results in a player with a greater valuation for winning being at top with a probability greater than a player with a low valuation. Thus, it achieve great and more efficient result. Furthermore, as the advantage gain by all player by winning and being vicotor is equally likely. Therefore, it is often efficient for minor conflicts because the stakes are not that high in that situation while it performs no better than a coin-flip for major conflicts.

Keywords: Bias, conflict resolution, Rock Paper Scissors.

Automate Identification of Semantics Error for Enabling Errorless Proof Reading

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Abstract: This paper mainly describes the working of Machine Learning. With the help of machine learning, we can find we can remove errors from a sentence. Errors can be of many types such as a spelling error, comparative, grammar error, plurality, punctuation error, spelling, misused, definite article, consecutive nouns, split and merge, subject verb agreement, common noun, proper noun, double words, superlative, indefinite article, pronouns and tenses. Whenever we write an important document, we need to ensure that there should be no mistake in the document. Mistakes or an error in the document gives a bad impression to the reader. Most importantly, the sentence or paragraph that we write needs to be error free. So with the help of machine learning, we created software that detects the errors in the given sentence or paragraph by highlighting the error and after highlighting the error, it prints the correct sentence or paragraph. Our software works only for the English language. Our software name is "Grammar Checker". It is helpful to check grammar of a given sentence or paragraph. The maximum character limit of a sentence or a paragraph is six hundred. Our software is written in the python language. Our software will be provided free. So it will help people to write an error-free sentence or paragraph. Grammar checker can also be used by the people who need to write an error-free document. People can learn to write error- free sentences as our software highlights the error in the sentence. Our software highlights the error with red color and highlights the corrected error with green color. This way it will help people to find mistakes while writing an important document.

Keywords: Google Collab, python, spelling checker, punctuation checker, grammar checker.

Air Pollution Forecasting using Machine Learning and Deep Learning Techniques

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Abstract: Traditional air pollution prediction methods have limitations. However, there are many different machine learning approaches which are best for tackling such problems present at the hands. As the influence of machine learning technologies is rapidly increasing and penetrating almost in every field, air pollution prediction is not being excluded from those fields. In this paper air pollution data, specifically particulate matter of less than 2.5 micrometres (PM2.5) was collected from a variety of web-based resources and following, data cleansing analysed with different machine learning models.

Spotting Fake News using Machine Learning

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Abstract: For some past late years, to a great extent since individuals began getting fast admittance to online media, counterfeit news has become a genuine drawback and are spreading a ton of and faster than the genuine news. As incontestable by the far reaching impacts of the enormous beginning of phony news, people are unequipped for identifying whether the news is certified or counterfeit. With this, endeavours have been made to investigate the strategy for counterfeit news recognition. The most famous and popular of such endeavours is boycotts of sources and creators that don't appear to be dependable. Though these instruments region accommodating, to frame a more complete start to finish goal, we additionally represent harder cases any place dependable sources and creators unharnessed bogus news. The thought process of this venture is to shape an instrument for examination the language designs that describe off-base and right news through AI. The aftereffects of this undertaking address the adaptability for AI to be useful during this errand.

Keywords: Fake News, Machine Learning, News, Inverse Document Frequency

Real-time Crowd sensing Application

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Abstract: Recently, various sensor applications in the marketplace have grown rapidly and are attracting attention due to their suitability for a variety of new types of context-sensitive applications and services. This is because modern devices have unparalleled recognition, calculation, and communication capabilities that enable them to perform more complex tasks. Despite a number of benefits, RCA faces new challenges due to network dynamics, large amounts of data, coordination of discovery tasks, and privacy concerns of the user. The application identifies crowds in real time and collects data from many devices such as CCTV, drones and then processes it accordingly. The application also aims to identify objects, count objects in real time. There will also be an intelligent system that recommends the appropriate ones. Action. This app comes in handy when you have to deal with large crowds.

Keywords: Machine Learning, Artificial Intelligence, React, Python, Microsoft visual code, Node.Js, AWS, API, Web Development

Emoji Creation Using Deep Learning

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Abstract: The word emoji is an English adaptation of the Japanese word – 'e' meaning picture and 'moji' meaning 'letter, character'. Emoji are usually small pictograms of a face, depicting different emotions in order for users to show how they are feeling in a simple image. Emoji are approaches to demonstrate nonverbal prompts. these prompts have become an essential part of online chatting, item review, brand promotion, and many more. It likewise lead to expanding data science research committed to emoji driven story telling. with progressions in deep learning, it is presently conceivable to distinguish human emotions from pictures.

Keywords: Emoji, FER, SVM, CNN, R-CNN

Instructions Visual Dashboard:
Get Instructions

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Abstract: The project is based on work proposed for common instructions based on common tasks but it makes a bigger issue, if a person faces issues regarding basic knowledge or instructions for common daily purpose, which they have to struggle. The project is like at an enquiry station or platform which can be used for organization such as in bank, schools or any government offices. Where this gives you the information and instructions regarding problems they face (like in school how to take admission or its procedure) which can be really helpful. Our web application is developed in JAVA, HTML which gives basic operations in the database for adding new links, updating links regularly and removes those links which are of no use. And these links will be given to organizations for their instructions to upload and information. After which people can use it. This web application is easy to use for both ADMIN and USERS. It will give a familiar and a user attractive interface, it will also give some better searching and reporting capabilities. The report generation facility of Data system helps to get a good ideas of which of the links are broken, not accessible, expired due to some reasons, or giving wrong instructions.

Keywords: JavaScript, HTML, CSS, Advancement, Nodejs, Expressjs

Online Portal For Farmers To Sell Their Goods

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Abstract: The growth in technology and high usage of the internet gave rise to the advancement of agriculture using E-commerce. There are a lot of E-commerce websites that are running in India in order to support consistency in agricultural marketing across the integrated markets by eliminating the lack of information between the buyers and sellers. Stakeholders are not happy with this trending technology for buying and selling groceries in spite of many opportunities. The monetary system of the online trading websites does not give rise to tremendous revenue during high demand and less supply and also not ensures less loss due to down selling of the products. A fixed monetary system stops the seller from joining this online system, as it does not come up with many advantages for the customer. A consistent modifiable, dynamic monetary system that can be altered according to the market condition as well as the quality of product, is important for maintaining seller profits and customer interest. This paper delineates many existing monetary systems and examines their relevance in the field of agriculture. This paper also delineates the challenges on approaching the monetary system. The factors like demand and supply, the freshness of products must be considered for the creation of a dynamic monetary system for E-commerce.

Keywords: E-commerce, Monetary System, Online Buyer and Sellers, Groceries, and many more.

Android Patient Tracker

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Abstract: Android Patient Tracker is an application which will be able to track patients who are in emergency situation and are away from hospitals so that medical support reaches the patients as early as possible more over it will also help to track people who need medicines in emergency situation.

   Keywords: Android Application, API, Firebase

The Case Study of Cloud Based Online Blood Bank System

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Abstract: Cloud based Blood Bank System is used to abbreviate the hole between the contributor and the beneficiary. No doubt that blood save lives and since we all know that the main problem in our country is related to blood because the number of people who need blood(recipient) is far more than the number of people who donate it(donor). Blood bank system helps to overcome problems to blood. The purpose of cloud-based blood bank system is to save lives of people by providing them information about the nearby hospitals, donors, recipients, blood banks and many other things. Online bank system is an application which is designed to automatise the various operations of blood bank. The system mainly includes hospitals, blood banks, recipients and donors. It provides a sublime management of blood, list of hospitals, blood bank, stores information like blood data, contact details of person, native bank data into the cloud.

Keywords: blood bank system, Java, Web-development, prior knowledge, Cloud storage.

Facial Emotion Recognition Using Machine Learning

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Abstract: For our situation investigation of AI facial exercises of calculation model to recognize the essence of an obscure individual's by applying faces. The inquiry of an acknowledgment of facial exercises from pictures that has pulled in to an extra ordinary consideration for a field of PC. The facial initiates portrayed by three levels. First level is our base level, facial highlights point around every facial pictures like: eye brows, mouth, eyes, and so forth catching the subtleties for face shape data. Second level is our center level, facial activity units, characterized in the facial activity coding framework, speaks to the facial muscles for instance explicit measure of light eyes and outward appearance should be done. In the high level language we have 6 protocol outcome appearance to say all over the facial sign that are usually to detect the human emotions to the various ways the standard put together methodology which just concentration with respect to the paper presents a system of the outward appearance? In this facial learning we have utilized the development AI technique that acquaints with become familiar with the model dependent on both tanning the information and the emotional to earlier information. In this the given model are all the while perceived through issue impacts. To play out the outward appearance, we have the three degree of the facial exercises. In the given model it quantifies the facial feelings of the broad test are utilized to played out the model to the attainability and the adequacy of the proposed model of the three degrees of the facial feeling that are given underneath. The grouping of the facial acknowledgment utilizing AI network indicated the amazing and the best aftereffect of the task and the proposed technique are contrasted and the best in class approaches of the framework strategy.

Keywords: facial emotion recognition, python, Machine learning, prior knowledge, facial emotion image, facial tracking image, facial action unit.

Smart Farming in IoT-Internet Of Things

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Abstract: Agriculture is a basic unit for human beings. Plays very important role in our daily life and this is also very important for our economy. Basically every crophas their own process in agriculture system but smart agriculture can help us to improve these systems;IoT sensor is one of the ways for smart agriculture. It will help us to know all the information out and then output we get according to the information. It has very high-tech technology to monitor climate, moisture, level of water we have,level of water we need for field's, humidity etc.Also helpful for monitor the things which will be harmful/damage for crops –device will inform us or inform the sensor after that we can change the condition and make them favourable for field's. IoT sensor technology will decrease hum-human interaction and will we be helpful for farmers for decrease their work. IoT sensors technology was proposed by Kevin Ashton that there is no need of human-human, human-computer; IoT would be having capability of data transmission over internet. If there is a need of water, the sensors would get activated and pump the water to the field. IoT sensors can monitor the condition of soil and climate, environment and will act accordingly; computer technology has great power for learn everything on time it can detect perfectly on which time field's water also will pump the water on time many other process like this will help us to improve growth of crops and it will be a different vision for agriculture system. Because of these technology we can reduce water wastage, extra pesticide used in the field's which can harm our crop after that when we get data of these condition it will provide solution/fruitful conditions then act on these as per data. After measuring that we will be able to provide fruitful climate to environment for fields. Basically we use this sensor technology as a wireless technology, monitor livestock so it will increase the productivity of farming and also helpful in increase profits of farmers, also damage will be reduced. I believe -"The Internet has the power change to improve whole farming technology or also can change the whole economy".

Virtual Desktop Voice Assistant

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Abstract: In this paper we are going to discuss about a unique application which do work very efficiently and this bring a good and awesome experience to the user in this paper we are going to discuss the whole criteria of voice recognition and the concept behind this project we deliver this paper on the basis of lot of studies of paper related to this project and we try to deliver the best and relevant concept which help to create a good and useful application if we see now a days (AI) is in boom no need of any adverting required to be very clear this paper will not contain brief information we will try to gather a lot of information regarding this application and get all things shorted and clear and hope this will help you to improve a project like this in future.

Keywords: Voice assistant.

License Plate Recognition System

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Abstract: Traffic controlling and vehicle/automobile identification it has become a major issue in all lands. Sometimes it is not easy to identify a car owner who breaks traffic and driving rules very quickly. That's why, it is almost impossible to catch and punishing those types of people for traffic officials may not be able to read the car number on a moving vehicle due to car speed. Therefore, there is a need improve Auto Number Plate Recognition (ANPR) system as one of the solution to this problem. There many ANPR programs that are available today. These systems are derived from various methods but still it is a really challenging job as some of the same features high speeding of car, different car number plate, car number language and distinctive light conditions can greatly affect the overall visual quality.

Road Anomaly Detection, Classification and Warning Using Machine Learning and Computer Vision

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Abstract: Roads play a very important role in our everyday life. It is still the most convenient and cheapest means of transport. But some external factors like weather conditions, daily wear & tear cause the road surface to degrade with time. These anomalies on the road surfaces can result in serious road accidents, delays, inaccurate route prediction, inaccurate time prediction. Manual mapping and data collection can be to time-consuming and labor-oriented processes. In this paper, we have demonstrated a convenient method of detection, mapping, and classification of anomalies on the basis of their type and danger level using the backup (parking) camera of the vehicle. Which can make the task a lot easier. The camera will record the surface of the road and the footage will be analyzed by computer vision and deep learning algorithms for any type of road anomalies. On detecting any anomalies, the machine learning algorithm will analyze them and classify them according to a severity level. The data will get uploaded to a cloud database common for all the vehicles. The crowd-sourced data from the database will be used to generate a map of road anomalies with their type and severity level. Any driver can be pre intimated for any dangerous road condition ahead of the vehicle from the cloud data. These maps can be used for more accurate transit time calculations, route planning, accident avoidance, etc..

Keywords: Road Anomaly, Cracks, Potholes, Computer Vision, Machine Learning, Severe Road Conditions

IOT Based Home Automation System

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Abstract: This paper is gift at the bases of price flexible, additional security material and user friendly to connect home appliances are connect with smart device by using the the Arduino microcontroller with connecting through cable for allow and control device by authorized users by sensing using smart device . the purpose of designing the system to user use internet of things by user desired to use application to helpful for human need and save energy and work smartly. To represent a effectiveness and feasible of the user to represent this system the paper will present for introducing the IOT based home automation by using Arduino UNO micro-controller and connecting with 8 channel relay module and connecting with Bluetooth with motion detection . It support to the user to manage various application and home appliances such as light,fan TV and can take action based on the sense control

Keywords: Arduino UNO, 8 channel relay module, Bluetooth

COVID Application using Android Studio

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Abstract: The covid-19 epidemic caused by SARS-Cov-2 remains a very important issue for world health, economics, and society. different knowledge are generated since its emergence in December 2019 and it's vital to investigate this knowledge to grasp this state of affairs. knowledge analysis is that the mead of delivery order and structure to the collected audiotape; On the opposite hand knowledge visualization is that the method of inserting data into a visible format that helps inform analysis and interpretation. Clinical knowledge analysis and visualisation results in numerous clinical trials supported the information collected that is vital in creating familiar choices. during this project we tend to square measure building a huntsman application that collects knowledge on fresh diagnosed cases, recovered cases and mortality on a routine altogether states of the country. the appliance conjointly produces period analysis and visualisation of information, which might facilitate in statement future trends. we tend to are implementing life science in our application for secure authentication on golem platform. it'll conjointly facilitate in knowledge discretion and access management of users. Users are going to be ready to select numerous biometric modalities like login.

Keywords: Covid application, research reports. Android studio

Handwritten Digit Recognition

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Abstract: The handwritten digit recognition system is a python deep learning based project and we say it gives a better experience in the field of drawing and knowing the detail about this concept in this paper we are going to explain all the concept which we used in this project and understand all this concept in deep, at end I hope you all can easily understand these concepts and have potential to feed these concept to others the Technique used in this project have main motive to show how neural network can be implemented by code neural network is used for finding text over image, and many ways to implement neural networks used for visual function. While the main objective was only literacy education, a moderate measure of recognition of 98% reached the test set. The project needs to have a foundation knowledge of Python programs, in-depth study of the Keras Library and Tikinter library to build a GUI. In today's modern world innovation is important to innovate something advance we have to start with basic as this project is first step toward the image recognition. After we successfully built an in-depth Python learning project a digital recognition. We built and good and fast working Convolutional a neural network that works fine and well and useful in image separation. Also, we create a attractive smooth and user friendly GUI where we are able to draw a digit on a canvas and then we edit digit and display results.

Keywords: Tkinter, Keras library, AI.

Online Training and Placement Management System

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Abstract: This application provides the very easier way of placement and training of students. The control of Online Training and Placement System is supported by paperless-based systems, AWS cloud, spreadsheets and E-mail communications. Training and Placement is the vital part of any educational organization in which most of the thing till now is being done manually. The aim of this project is Automation of Training and Placement unit of any college. We have used containerised technology (Docker) and integrated many tools like Kubernetes, terraform, Jenkins and Ansible to automate the application. In this application the student can do enrolment in very simple manner the placement officer can easily get the details of students. Institute provides the criteria those students are eligible can automatically they notify. Student, TNP staff and TPO get all the required details.

Event Management Web Application

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Abstract: This web application allows the project initiator to start a project and add other members below him. The project initiator can post their definite tasks through the blogpost system (text-based chat system). The members can keep the admin updated through messages posted on the dashboard of the blogpost system. The members can further add other teammates' hierarchy. Keywords:- Events Management, Project Management, Web Application, ReactJS, Google Cloud Platform.

IoT Devices Energy Harvesting:
A Comparative Approach

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Abstract: There are recent innovations done in Electronics Technology, many of them are having numerous applications in our day today life. Most of them which are related to our day today work and without these we cannot see things to be done in an efficient way as the make the work easy and also monitor our health. These majorly includes PDA's, Laptops, Mobile phones, Health monitoring devices such as Fit bands, Smart watches and so on…. As these devices are interconnected to each other i.e. Device to Device connection without human interference. Such a application has to undergo many challenges. The machine (device) has a challenge of self sustainability as it has limited energy resource (Battery) to be utilized. This paper majorly highlights the area of challenge in energy utilization by designing of a antenna by which the issue of battery (which acts as an energy source) can be overcome. In the process steps such as design, optimization, and fabrication of antenna (can also be called as Energy Harvester) which is used to simply recycle the energy received from the frequency of 2.4Gz from the nearby WIFI devices and converts it into a dc power. The circuit model basically includes an antenna, rectifier, a filter and other such supporting circuits.

Keywords: IoT, Energy harvesting, Rectenna..

Modern Clustering Techniques In Wireless Sensor Network

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Abstract: Wireless sensor networks are a replacement sort of networked systems, characterized by severely constrained process and energy resources, and an ad- hoc operational setting. When wireless detector networks are deployed in a hostile pieces of ground, security becomes very important, as they're at risk of different types of malicious attacks. Thanks to the inherent resource limitations of detector nodes, existing network security ways, together with those developed for Mobile Ad-hoc Networks, don't seem to be well appropriate for wireless detector networks. As a crucial issue of security in the wireless detector, networks have attracted loads of attention within the recent year. This paper created an intensive analysis of the most important security issue and conferred the ongoing side of more development to designers in their struggle to implement the most cost-efficient and acceptable methodology of securing their network.

Password Vault

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Abstract: As the increase in amount if users in social media the risk of getting their accounts and stealing their private information also increased and one of the way is to steal their password from the server which the person give permission to save in it while touching remember my password option.
Keywords: Password Vault, Security, Password Breach, Password Leak

Prediction Of University Student Career And Personality Using Analysis In Data Mining

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Abstract: Data mining can be used for decision making ineducational system. As students are going through their academics and pursuing their interested courses, it is very important for them to assess their capabilities and identify their interests so that they will get to know in which career area their interests and capabilities are going to put them in. This will help them in improving their performance and motivating their interests so that they will be directed towards their targeted career and get settled in that. Also predictors while predicting the candidates after assessing them in all different aspects, these kind of career help them in deciding in which job role the candidate should be kept in based on his/her performance and other evaluations. This paper mainly concentrates on the career area prediction of computer science domain candidates. It helps students who need special attention and allow the teacher to provide appropriate advising/ counselling.

Keywords: Data mining, Personality classification, NCN classifier.

Analysis of Human Detection System

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Abstract: This work does a comparative study on how hyper parameter configuration influence on the Histogram of oriented gradient technique used for detecting humans in the videos or images. We used OpenCV implementation of technique developed by dalal & triggs to analyze human detection for real-time system. In this paper, we present a study regarding the influence of hyperparameter configuration in classification accuracy, depending on the user and the activities performed by each user. Human detection with higher accuracy can be done by using deep neural networks, CNN but that needs heavy computations, hardware and still take time to process as these include 150 network layers and millions of parameters, sometimes need big GPUs to process these features. We need algorithms that can easily deploy on edge devices so we did analysis on classical computer vision technique Histogram of oriented gradient and combine it with Machine learning tool i.e Support Vector Machines for predicting humans in frame. The algorithm is run through a common data set(MIT and INRIA pedestrian dataset). All the conclusion derived, is based on continuously taking readings from the given algorithms. Also, the algorithm is chosen in such a manner that it can stand against modern ANN based detection in real time systems, which makes it explicit compared to the work existing in this field. The data recorded from the execution is analyzed based on the previous work on this technique.

Keywords: HOG (Histogram of Oriented Gradient), winStride, Padding, Scaling, hiThreshold.

Face Detection

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Abstract: Face detection from image or video is a popular topic in biometrics research. Many public places conventionally have surveillance cameras for video capture and these cameras have their consequential value for security purport. It is widely acknowledged that the face apperception have played a consequential role in surveillance system as it doesn't need the object's cooperation. The genuine advantages off ace predicated identification over other biometrics are Uniqueness and acceptance. As human face is a dynamic object having high degree of variability in its appearance, that makes face detection aconundrum incomputervision.Inthisfield,precisionandhasteofidentificationisamainissue.The Goal of this paper is to evaluates undry face detection and apperception methods, provide consummate solution for image predicated face detection and apperception with higher precision, better replication rate as an initial step for video surveillance. Solution is proposed predicated on performed tests on sun dry face affluent databases in terms of subjects, pose, emotions, race and light.

Keywords: Face Detection, Face Recognition, Biometrics, Face Identification.

Early Prediction and Prevention of Lifestyle Diseases

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Abstract: Lifestyle diseases is common among the population today not only in India but also in almost every country. Lifestyle diseases are caused because of the habits that we have in day to day basis. The way one lives his life is the major cause of it. It includes heart disease, hypertension etc. which all may heard of. In our life also, one also come across atleast one person who is either suffering from such diseases or the diseases became the reaason of his death. We also came across many such people who died because they are not aware of their disease and left with no appropriate time for the treatment. That is why, we decided to develop the model which will analyse the data entered by the user and will give the predictions of the diseases which he or she may have chances to suffer from. This not only give the predictions but also gives you the preventive measures that are required to stay safe from the very common lifestyle diseases as well as in case of mild symptoms it provides you with the management techniques also. This project aware the person about his health so that he will have the treatment well in time if required and will save the lives of many people. This project covers three main aspects which are prediction, prevention and management of lifestyle diseases.

Tourist Guide

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Abstract: This app will be helpful for those who are visiting any places in India and don't have any idea about it. Also, the project tourist guide provides the tourist with city map depending on its current location entered by the phone user. This information helps the tourists to find the desired locations to visit. Well, it consists of entire details of those locations or how to reach the location as well as other emergency amenities like hospitals, institutes, bus stops etc. but it provides the basic information to decide the places to visit. This project is mainly beneficial for the tourist's having no idea about the places they want to visit. By providing geographic based information system the tourists and people shifting to new cities can get a better guidance of the places they want to visit. This proposed application does not require any internet access and thus eliminates the disadvantage of single point failure. This application has many advantages as the user can view the required location in map according to his/her choice and accordingly find the time that will be required to reach the required destination. The application will give the basic details that will be required to know about the place such as an image of that place along with basic details like the address, contact no, charges etc. Also, it will provide information about hotels, restaurant etc. where a person can stay according to their spends.

Bank Chat BoT Using Python

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Abstract: Chat bots are the system or you can say a software that act as a normal person to solve your problems or deal with the situations that you are facing off. So, we are making a project on the bank chat bot. Which will help the users of the bank for doing any tramp. It helps like a real person such as we go to a bank for any help and we contact a person for this. But this bank chat bot will help us instead of a person to solve our worry .So, by remaining in our homes only we can get benefitted. It is a very handy software in nowadays online systems. Due to the COVID-19 people cannot get out so, people can use this initiative to solve their problems that they are facing with their banks. Our chat bot system can do every type of work that a bank can do such withdraw, deposit, knowing about the bank and each item . So it is a most beneficiary thing in our lifestyle.

Keywords: Chatbot, Bank, Python