"Ambulance Tracking And Calling System"

Mr. Aditya G. Budh	**Prof. Swapnil S. Nehar**
Ms. Shradhha F. Bahoriya	
Ms .Tejwal S. Londe	
Mr. Ashish V. Jaiswal	

Abstract : Ambulance Tracking and calling System is an organized computerized system designed and programmed to deal with day to day operations and management of the hospital activities.

It is a platform to which helps a user to communicate booking healthcare services. The program can look after ambulance services booking, hospital services booking. The major problem for the patient nowadays to get easy access available to the patient when he / she is in need. In this project we are going to provide the extra facility to book the healthcare services by using this platform.

That mean each minute is important between the time ambulance is called when the ambulance arrives on location the scene is critical. Today there are a hundred ambulance services running yet unknown to people.

Every hospital has its own contact number for the ambulance every private and government Service has its own contact numbers for an ambulance. Different NGO's are having their ambulance services which are unknown to people it become really hectic for a person to call all these numbers and ask for ambulance so we thought of developing these software in which patient will get the nearest ambulance on a click of button.

"VIRTUAL DRESSING ROOM"

Miss Aayushi Sonkusare	**Dr. Anjali B. Raut**
Miss Megha Umale	
Miss Mohini Kaware	
Miss Gayatri Mahulkar	
Miss Dhanshree Raut	

Abstract : People usually avoid buying wearables like clothes, ornaments, etc. online mainly because it's hard to judge whether it will look good on them or not. To solve this problem, we decided to build an Online Trial Room Application.

Our research is based on creating an application which takes a video of the user using the device camera and then divides the video into individual frames from which it extracts the user's body. Finally using functions to extract information on the placement of joints in the body and to transform, rotate, and scale the wearable image onto the user in real-time. In the literature review, we go through various ways to achieve our goal with their advantages and disadvantages.

The project is implemented in Flask Web application with OpenCV a Python Module. The application works on devices with an inbuilt or attached camera, internet, and web browser.With recent advances in web technology, many online shopping websites have emerged. Despite its advantages, however, online shopping presents certain drawbacks. One drawback is that it may be difficult for a person to visualize how a given article would look if worn by that person-owing to the rich variation in body size and shape, hair and skin color, etc., in the human population.

Testing the fitness of clothes is highly important for both customer and trader. Our approach concentrates on how the selected garment fits the user's body and how it will appear as if he/she were in the real world. This was carried out by identifying critical points on garment and user's body dimensions using image processing techniques.

"Sports Performance Enhancement Based On Video Analysis"

Ms. Prachiti K. Kolhe	**Prof. Prajkta P. Chapke**
Mr. Manav A. Gulhane	
Ms. Kirti K. Pawar	
Mr. Rushikesh V.Hirode	

Abstract : Technology-based assessment in sport has become increasingly popular. Watching sports videos over streaming sites and television network is one of the most entertaining ways to engage with sports activities. Sports videos like cricket has been viewed by larger audiences than viewing in person. The pandemic since 2020 has changed the world of sports viewing to a larger extent. Some of the sports events are even streamed live through YouTube. The most interesting part of any sports videos is watching the highlights or events of great interest. This is because of the lack of time to watch the entire length of the game. Automatic video summarization is the solution to this. Some of the day long sports like cricket needs the summarization to be very precise and bring the content within few minutes to the audience. There are several attempts in the literature to automatically summarize the sports videos, particularly the game of cricket. A brief review of existing methods of video summarization that addresses many sports including soccer, cricket, tennis, and basketball are reviewed at the beginning. Later, the methods that are developed based on latest machine learning and high performance algorithms are discussed in detail.This is in part due to increasing accessibility to programs and Desktop applications that can be used with minimal training. Coaching endurance in sports is no different in its interest in movement analysis of athletes. Many mobile applications have been used by endurance coaches to augment assessment practices in coaching. Performance Enhancement is one of the most important and difficult components in video analysis .The aim of performance enhancement is to improve the visual appearance of the video, or to provide a better transform representation for future automated video processing, such as analysis, detection systems. We present an overview of video enhancement processing and analysis algorithms used in these applications. The existing techniques of video enhancement can be classified into two categories: Our Aim is to develop the Desktop Application in such a way that we will be easily accessible by everyone irrespective of sports status. As the name suggests performance enhancement for those peoples who want to learn some basic techniques and their strategies with the help of video enhancement .

Key Words : -Performance Enhancement , video analysis , sports and their techniques , analysis, Sports Video, Person Detection, Player classification, player strength & weakness analysis, knowledge extraction for practical training.

"KISANSARATHI"

Ms. Sakena Patel	**Prof. Yogesh R.Rochlani**
Ms. Shubhada Nikam	
Mr. Prathmesh Fanse	
Mr. Jayesh Fuse	
Ms Nisha Raidas	

Abstract : India is an agriculture-based country. But nowadays, the prime occupation is at stake with conditions like inflation, degraded quality and quantity of crops, market rates of crops going down, increased farmer suicidal rate by each passing year. Such issue has to be resolved because they are directly responsible for the economy and prosperity of our country where food, clothing, shelter are our basic needs. Considering the need and lack of information to farmers, we decided to develop a Forecasting System for Farmers which will provide market analysis of crops supply and demand.

Our aim will be to develop the system in such a way that will be easily accessible by everyone irrespective of their education and economic status. As the name suggests, system forecasts information for farmers for cultivation. Information about when and which crop to be cultivated according to its market demand.

Agriculture was identified as one of the great promises of e-commerce due to the high level of fragmentation present in the supply chain, large volumes traded, and homogeneous products only reinforced the expectations Our aim is to develop the system in such a way that will be easily accessible by everyone irrespective of their education and economic status. As the name suggests, system forecasts information for farmers for cultivation of crops and provides facility for online shopping of agricultural inputs such as pesticides, seeds, equipment etc.

"Intrusion Detection System Using Machine Learning Algorithms"

Miss. Nikita Deshmukh	**Prof. R. R. Deshmukh**
Miss. Dhanashree Yadav	
Miss. Rasika Sawai	
Miss. Pallavi Chichghare	
Miss. Samiksha Diwan	

Abstract : Intrusion detection system [IDS] is a significant base for the network defense. A huge amount of data is generated with the latest technologies like cloud computing and social media networks. As the data generation keeps increasing, there are chances that different forms of intrusion attacks are also possible. This project mainly focuses on the machine learning (ML) techniques for cyber security in support of intrusion detection. It uses five different algorithms, namely support vector machine, perceptron, k-nearest neighbourer (KNN), stochastic gradient descent, XGBoost. The discussion on using the emerging methods and challenges is presented in this project with the well-known NSL_KDD datasets. Feature extraction is performed on dataset, and project model is trained and tested using k-folds. After testing model using five algorithms we get one of the best algorithm which will give the highest accuracy of detection without any false alarm or with negligible errors.

"Automatic Question Paper Generator"

Ms Mahima Raut	**Prof. Yogesh R.Rochlani**
Ms Nishita Pathekar	
Ms Deval Datir	
Ms Aishwarya Ambadkar	

Abstract : This is a challenging era due to the growth in the field of computer science and demand we are facing today. Hence examinations play a vital role in testing student's performance. And that is why it is important to have a smart development question model for growth of students as well as to test their learning skills thereby keeping a check on student performance. . Now the traditional method of generating question paper has been manual. In this method certain officials chalk out the question paper. But this method can be ineffective at times owing to bias, repetition and security concerns. We have proposed an automated process of Question Paper Generation which is fast, streamlined, randomised and secure. In today's age, education is the most important way of achieving success. When we discuss education, it is imperative to mention tests and examinations. Examinations prepare students in their quest for knowledge. So, having a proper examination paper and format is quite necessary. Now the traditional method of generating question papers has been manual. In this method certain officials chalk out the question paper. But this method can be ineffective at times owing to bias, repetition and security concerns. We have proposed an Automated process of Question Paper Generation which is fast, streamlined, randomised. Every task performed by this system is automated so that storage space, bias and security is not a concern anymore. Furthermore, we have proposed a new algorithm which ensures total randomization of questions and avoids repetitions. The proposed system can be helpful to many educational institutes .

"Online Oxygen Cylinder Supply and Blood Distribution

Management System: A Healthcare Application"

Ms. Sonal S. Chaudhari	**Dr. Rajeshri Shelke**
Ms. Shiba S. Khan	
Ms. Srushti S. Gawande	
Ms. Vaishnavi G. Asolkar	

Abstract : Oxygen therapy is an essential medicine and core component of effective hospital systems. However, many hospitals in low and middle income countries lack of reliable oxygen access a efficiency highlighted and exacerbated by the corona virus disease (COVID-19) pandemic. Oxygen access can be challenged by equipment that is low quality and poorly maintained, lack of clinical and technical training and protocols, and deficiencies in local infrastructure and policy environment. We share learning from 2 decades of oxygen systems work with hospitals in Africa and the Asia-Pacific regions, highlighting practical actions that hospitals can take to immediately expand oxygen access. Blood transfusion safety remains an important public health concern in india. The availability of blood products of all blood types and the provision of its safety ensure public trust of its excellent healthcare system. However, lack of availability of these blood products and provision of unsafe blood products still impact morbidity and mortality in the Sultanate. Through the use of online blood bank management system, blood transfusion safety is expected to be enhanced or improved. Risks on improper blood donors' documentation, and misplaced records can be minimized or totally avoided. Also, processes involving blood bag collection, storage, and inventory will be systematized and organized, hence, improving the healthcare management.

"ARA(Advanced Recon Automation)"

Mr. Vinit V. Ghodegaonkar	**Prof. R. R. Deshmukh**
Mr. Darshan N. Kose	
Mr. Abhinav A. Kadu	
Mr. Rahul V. Raidas	
Mr. Yogesh M. Tiratkar	
Mr. Vinit V. Ghodegaonkar	

Abstract : Penetration Testing (or Pen Testing) refers to process of testing organization's security posture using similar techniques and tools like that of an attacker, but with knowledge and approval of organization. Reconnaissance or Foot-printing is the first step to perform in pen testing process. We have developed a tool which is a replica of Nessus (Industry approved reconnaissance tool) but efficient than Nessus's free tier. Offering both high speed working and report generation.

"Zombie Runner (Game Developed on Unity Engine)"

Mr. Ricky Waikhom	**Prof. Prajkta P. Chapke**
Mr. Piyush Nimje	
Mr. Kunwar Chawande	
Mr. Abhishek Misale	

Abstract : Today in modern world, almost everybody has a smartphone or a PC/laptop and everyone is familiar with the games in it as a means for leisure. But now its industry is growing rapidly in current times mainly due to pandemic, due to their increased time at home, gamers have had the opportunity to download and purchase new games and consoles, and so much more. The gaming industry outperformed both movies and sports combined last year as the biggest money-maker in entertainment. In fact, on a global scale, the gaming industry was valued at $162.32 billion in 2020. Based on the current growth rate, it's expected to reach a value of almost $300 billion over the next five years.

Our project is developed on the Unity Game engine in c# language.Unity3D is a game engine that supports the development on multiple platforms including web, mobiles. There are two levels in our project. In level first total 11 zombies are present in the ground and bunker, the player enters into the ground and starts collecting ammos and then starts to kill/shoot zombies with the help of a gun. There are three types of guns Player will use: shotgun, DMR and Pistol gun. For a shotgun, 3 rounds of fire take to kill one zombie, for DMR it takes 2 rounds of fire to kill one zombie and for pistol it will take 7 rounds to kill one zombie. After shooting zombies into the ground, the player enters into the bunker and shoots zombies into the bunker. After that player collects ammos in the bunker and hits the push button to enter into the second level. In the second level total 10 zombies are present and start attacking then the player starts shooting remaining zombies.

It mainly uses C# (Unity Scripting API) and C++ (runtime) to develop a game. Since, it mainly supports OOP (Object-Oriented Programming) language, this makes it highly efficient, flexible, scalable, and easy to maintain.

"Cyber Security Tool Kit"

Mr. Abhishek Gandre	**Prof. Nachiket Rathod**
Mr. Shyam Sagane	
Mr. Shritej Nimbhorkar	
Mr. Smit Vidhate	
Miss. Gauri Vyawahare	
Miss. Aakansha Ajmire	

Abstract : Now we are living in a digital era. With the help from virtual meetings to online transactions, bookings, and so on services have turned everything is going from offline to online day by day. As there are two sides to a coin, in the same way the internet has its two sides. As digitalization is increasing online fraud and cybercrime are increasing as well. We need to secure our system to prevent our information, data, and network. To make our system secure we need to audit or analyze our systems and networks.

Now a days companies are also taking competitions online to check the candidate's knowledge and to check their system bug. Because while coding much time by mistake some bugs are left by the developers and by using these bug hackers can damage the system. While performing the task in this kind of competition candidates require some tools. And For this and other purposes, this tool kit will be help full.

In Linux Operating System cyber security application was preinstall and, in the command-line interface (cmd) and when we run this application, we need to type a command on the terminal it's getting a lot of time to run a particular application. And if any condition command syntax or spelling is incorrect it gives an error. but we want one click result in our application and it gives function and feature without getting error. As well as this tool kit is helpful to CTF players for solving hackathon tasks in one toolkit.

"Design and development of interactive chatbot for students"

Mr. Rutvik M. Nandane	**Prof. Swapnil S. Nehar**
Mr. Prajwal M. Lokhande	
Mr. Vinay J. Gadicha	

Abstract : Before chatbots there were simply bots: The invention of a chatbot brought us to the new era of technology, the era of conversation service. A chatbot is a virtual person that can effectively talk to any human being with the help of interactive conversion textual skill. A chatbot is a software application used to conduct an on-line chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent. Chatbots are software applications that use artificial intelligence & natural language processing to understand what a human want, and guides them to their desired outcome with as little work for the end user as possible

Now a days there are many platforms available for developing and deploying the chatbot such as Microsoft bot framework, IBM Watson, Kore, AWS lambda, Microsoft Azure bot service, Chatfuel, Heroku and many more but all those techniques has some drawbacks such as built-in Artificial Intelligence, NLP, conversion service, programming etc. This thesis represents about how to build chatbot using python and other technologies such as machine learning, artificial intelligence, natural language processing and deep learning. It is also providing all the information about the chatbot and its associated processes.

"WEB PORTAL FOR E-COMMERCE"

Mr. Mrunesh A. Ganorkar	Dr. Anjali B. Raut
Mr. Saurabh U. Jambhale	
Mr. Akhilesh A. Raut	
Mr. Abhilash R. Bawankule	
Ms. Rushali V. Kolwate	

Abstract : This project is a web based shopping system for an existing shop. The project objective is to deliver the online shopping application. This project is an attempt to provide the advantages of online shopping to customers of a real shop. It helps buying the products in the shop anywhere through internet by using an android device. Thus the customer will get the service of online shopping and home delivery from his favorite shop. This system can be implemented to any shop in the locality or to multinational branded shops having retail outlet chains.

If shops are providing an online portal where their customers can enjoy easy shopping from anywhere, the shops won't be losing any more customers to the trending online shops such as flipkart or ebay. Since the application is available in the Smartphone it is easily accessible and always available.