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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

18CSE702 - Project Work II - Title and Abstract 47(2022 203)

Batch No	Register No	Title	Abstract	Name of the Guide
1	19691A0512, 19691A0548, 19691A0551	Predict Heart Disease Using Machine Learning Algorithms	Heart disease remains a leading cause of mortality worldwide, emphasizing the need for early detection and intervention. Machine Learning (ML) algorithms offer a promising approach to predicting heart disease by analyzing patterns and relationships in medical data. This project aims to develop an ML-based system for heart disease prediction using patient data such as age, gender, blood pressure, cholesterol levels, and other health metrics. The study involves data preprocessing, feature selection, and the implementation of various ML algorithms, including Logistic Regression, Decision Trees, Random Forest, Support Vector Machines (SVM), and Neural Networks. The performance of these models is evaluated using metrics like accuracy, precision, recall, F1-score, and area under the Receiver Operating Characteristic (ROC) curve. By leveraging real-world datasets and advanced ML techniques, this project demonstrates how data-driven insights can enhance diagnostic accuracy, aiding healthcare professionals in early detection and personalized treatment of heart disease. The proposed system aims to contribute to more efficient and scalable healthcare solutions, ultimately improving patient outcomes.	Dr. Mahaboob Basha Shaik
2	19691A0511, 19691A0526, 19691A0550, 19691A0555	Flight delays with error calculation using ML	Flight delays significantly impact airline operations, passenger satisfaction, and overall airport efficiency. Accurate prediction of delays can help mitigate these issues by enabling proactive measures. This project leverages Machine Learning (ML) techniques to predict flight delays using historical and real-time data, including flight schedules, weather conditions, airport traffic, and airline performance metrics. Key steps include data preprocessing, feature engineering, model training, and evaluation. Regression models are used for delay duration predictions, while classification models assess the probability of delays. Performance metrics such as Mean Absolute Error	Dr. K Lakshmi

			(MAE), Root Mean Squared Error (RMSE), and classification accuracy are employed to quantify prediction accuracy. By implementing robust algorithms like Random Forest and Gradient Boosting, this project demonstrates the potential for accurate, real-time delay forecasting. The findings emphasize the importance of integrating diverse data sources and highlight the practical applications of ML in enhancing operational efficiency within the aviation industry.	
3	19691A0525, 19691A0528 20695A0502, 20695A0503	Automatic Number Plate Recognition using CNN	Traffic control and identifying the owner of vehicle have become a major problem in every country. It can be tough to detect a car owner who breaches traffic laws and drives too quickly. As a result, it is impossible to apprehend and punish such individuals since traffic officers may be unable to acquire the car number from a moving vehicle. As a result, one of the answers to this challenge is to design an Automatic Number Plate Recognition (ANPR) system. Also, in order to check for suspicious vehicles or vehicles that were involved in crime, in that case it is useful for the polices to browse the details of the accused vehicles. "Automatic Number Plate Recognition (ANPR) has been an active research area in computer vision, with applications in traffic surveillance, law enforcement, and parking management. In recent years, deep learning models have shown promising results for ANPR tasks, with YOLOv8 being a state-of-the-art object detection model. In this work, we propose an ANPR system using YOLOv8 as the object detection backbone. Our system is designed to accurately detect number plates from a variety of vehicle types and lighting conditions. We also integrate optical character recognition (OCR) to extract the license plate number from the detected plates. We evaluate our system on a large-scale dataset and show that it achieves high accuracy and robustness. Our ANPR system can be used for real-world applications, such as automated toll collection and vehicle tracking."	Dr. R. Kalpana
4	20695A0501, 20695A0504 20695A0505, 20695A0506	Paddy Plant Disease using Deep Learning Techniques	Correct disease identification is essential to preventing paddy plant disease's severe negative consequences on crop yield. Nevertheless, the current methods for diagnosing diseases in rice are neither precise nor effective, and frequently additional equipment is needed. The software can identify the three primary illnesses that harm paddy plants because it was created using deep learning techniques. We employ the MobileNet method to obtain the most precise data. These depth-wise separable convolutions are used in the algorithm. When compared to a network with regular convolutions of the same depth, it considerably reduces the number of parameters. Lightweight deep neural networks are the outcome of this. With encouraging findings, the MobileNet algorithm has been applied to paddy plant disease detection. A lightweight deep learning architecture called MobileNet. Real-time detection on electronic devices is made possible by its application in the detection of paddy plant illnesses, making it simpler and quicker for farmers to identify and treat plant diseases in the field. The accuracy of the detection was 99%.	Dr. D. Jagadeesan

ų,			Keywords: Accuracy, MobileNet, Convolutional neural network (CNN), Parameters, depth-wise separable, Lightweight deep neural networks, Real-time detection	
5	19691A0516, 19691A0517 19691A0527, 19691A0530		One of the main requirements and significant task of Autonomous Vehicles is Traffic Sign Detection. Detecting traffic signs in complex environment conditions and size is often a challenging task. A number of methodologies have been constrained sign so far like using R-CNN and Faster R-CNN algorithms which are known for their proposed but these are not suitable for real time applications as they lack real time speed. Single Shot object detection algorithms like SSD and Yolo algorithms are known for their speed with comparable accuracy to RCNN method. It's is very important that the response time of our algorithm should be fast enough to avoid any accidents and traffic violations. In this paper we present a model using latest version of Yolo. This version 7 Yolo performs better than previous models in terms of accuracy and speed that meet our real time requirements. Experimental work shows that using yolo for traffic sign detection results in good accuracy.	Dr. V. Arun
6	19691A0520, 19691A0537 19691A0538, 19691A0563	Predicting Diseases using Facial Features with Deep Learning	Based on the reports of the World Health Organization (WHO) 2% to 5% of kids are born with genetic disorders around the world. A genetic disorder is a disease caused due to abnormalities in DNA or genome, ancient geneticists found that there exists a relationship between the facial features of a genetic disorder person and a particular genetic disorder. The main objective of this project is to determine the probability of identifying diseases from face images using deep transfer learning technologies. In this project, we propose using deep learning techniques like a mobile net for face recognition from images and deep transfer learning for extracting facial features from the image to detect major genetic disorders like Beta-thalassemia, Down syndrome, Leprosy, and Hypothyroidism using a small dataset. In general, the collection of datasets of facial images related to particular genetic disorders is costlier, difficult, and unethical because of private data treatment. Hence, the datasets for this project are smaller as compared to the traditional datasets used for other Machine Learning projects. With the help of the Convolutional Neural Network (CNN) technique of deep transfer learning the accuracy can be reached up to 92%. In addition, a web page is created for the same, so that non-technical people can access and use it easily without facing any difficulty.	Dr. R. Nidhya
7	19691A0504, 19691A0508 19691A0523, 19691A0558	A Comparative Evaluation of Machine Learning Algorithms for the Early Detection of Liver Disease	Millions of individuals all over the world are afflicted with liver disease, which is a major health issue. Accurate and early identification of liver disease can help stop additional damage and enhance the effectiveness of therapy. Based on patient data, machine learning algorithms have showed potential in the prediction of liver disease. In this research, our goal is to create a machine learning model that, using patient data, can precisely predict the possibility of liver illness. Patient data, including demographics, the results of blood tests, and medical history, make up the dataset utilised in this study. 583 entries total are included in the collection, of which 416 are	Dr. G. Arun Kumar

			identified as having liver disease and 167 as not. The dataset has been pre processed to account for categorical variables, outlier values, and missing values. In this research several machine learning methods are assessed, such as K-NN, decision trees, logistic regression, and support vector machines. The effectiveness of each algorithm is assessed using measures like the F1 score and the Jaccard Score. The dataset is divided 70/30 into training and testing sets, which is used to train and test the algorithms accordingly. The findings indicate that the Logistic algorithm had the best accuracy in predicting liver disease, coming in at 87.69%. The model has a Jaccard and F1 score of 88.54% and 87.89%, respectively. The accuracy rates for the decision tree and K-NN methods were 81.54% and 80.77%, respectively, and both algorithms shown high performance. Feature significance approaches were used to determine the characteristics that were most crucial in predicting liver disease. The outcomes revealed that the amount of total bilirubin, and alkaline phosphatase level were the most important features in predicting liver disease.	
8	19691A0503, 19691A0505 19691A0513, 19691A0531	Vaccine Booking and Management System using Blockchain	The use of Block chain for tracking and tracing vaccine inventories, logistics, and transparent distribution is important to immunisation. Immunization provides you with continuous visibility and actionable data into vaccine distribution, allowing you to track vaccine distribution and ensure fair and equitable distribution. Immunization allows you to schedule immunisation appointments and track the vaccine's distribution. Block chain contributes to the integrity and openness of the entire process, beginning with the development of the vaccine.	
9	19691A0529, 19691A0532 19691A0536, 19691A0586	Brain Disease Classification along with Age Estimation from MRI	Deep neural networks can effectively estimate the chronological age of healthy individuals from neuroimaging data, and the projected brain age may be used as a biomarker to identify aging-related disorders. As a result, we are employing MobileNet, a machine learning algorithm, as well as ResNet, a deep learning cascade network, in the suggested strategy. The brain MRI pictures that were divided into three groups-"-Normal, which is unaffected by any disease, and the other classes, which were affected by Alzheimer's disease (AD) and Mild Cognitive Impairment (MCI), were trained using these algorithms. And from the categorised photographs, we can also determine the ages. The training of the MRI image dataset, upon which the classification and age estimates will be carried out, primarily uses RESNET and MOBILENET. Keywords: MRI, age estimate, mild cognitive impairment (MCI) and Alzheimer's disease (AD), as well as RESNET, deep learning, and MOBILENET.	Dr. R. Sudhakar
10	19691A0501, 19691A0506 19691A0510, 19691A0547	using Machine Learning	The goal of implementing a smart real estate project using machine learning is to enhance the efficiency and effectiveness of the real estate industry by capitalizing on the power of data and machine learning algorithms. Such a project can accurately forecast the sale price of a property, automate property valuation procedures, recognize patterns and trends in the market, and offer customers a web or mobile application to	Dr. G. N. Vivekananda

			input property information for better experiences. The intelligent real estate project employing machine learning can also promote transparency and equity in the industry by providing valuable insights, automation, and improved customer experiences By leveraging machine learning, real estate agents and investors can make informed decisions regarding which properties to purchase, sell, or rent. Additionally, machine learning can save time and money in executing real estate transactions. Furthermore, machine learning can identify trends and patterns in the real estate market that humans would not have identified independently. To achieve the above, a large real estate property dataset, including relevant features such as location, price, and square footage, must be collected and cleaned. Supervised learning algorithms, such as decision trees or linear regression, can then be used to train a model that predicts a property's sale price based on its features. Furthermore, unsupervised learning algorithms, such as k-means clustering, can detect patterns and trends in the data that can help with real estate investment decisions. The model can then be integrated into a web or mobile application that allows users to input property details and obtain a prediction of the property's sale price. The smart real estate system, utilizing the five machine learning algorithms including Linear Regression, Lasso Regression, Ridge Regression, Random Forest, and XGB Regression, has achieved an accuracy rate of 90% for buying, selling, and prediction of price tasks. The system has provided an accurate sale price prediction and a satisfactory user experience on buying and selling pages. Continuous monitoring and evaluation are essential to improve the system's accuracy and keep it updated with the latest trends.	
11	19691A0502, 19691A0543 19691A0557	Image Captioning for Visually Impaired using Machine Learning	The Image Captioning for Visually Impaired project has been developed for automatically creating the description of Image using any natural language sentences. As a recently emerged research area, it is attracting more and more attention. To achieve the goal of image captioning, semantic information of images needs to be captured and expressed in natural languages. Connecting both research communities of computer vision and natural language processing, image captioning is a quite challenging task. Various approaches have been proposed to solve this problem. The project summarizes the related methods and focuses on the attention mechanism, which plays an important role in computer vision and is recently widely used in image caption generation tasks. Furthermore, the advantages and the shortcomings of these methods are discussed, providing the commonly used datasets and evaluation criteria in this field. Finally, this paper highlights that how the description is produced for an image.	Dr. K. Sudhakar
12	19691A0515, 19691A0519 19691A0524, 19691A0554	Emotion based Music Recommendation System using CNN	The daily lives of people are greatly influenced by music. Everyone wants to listen to music that suits their personal tastes and mood. Users are constantly need to manually browse the music and construct a playlist or songs based on their mood. The suggested project, which creates a music playlist depending on users' current moods, is quite effective. The most effective approach to convey a person's current mood is through	Dr. D. J. Ashpin Pabi

			their facial expressions. This project aims to use facial expressions to propose songs to users based on their mood. Webcams are used to capture facial expressions, which are then fed into a learning algorithm to determine the most likely emotion. When an emotion is detected, the algorithm recommends a songs for that emotion. After CNN has identified the user's sentiment, the Music Player uses that information to create a song that matches that feeling. Keywords: CNN, Facial expressions, Music Player.	
13	19691A0509, 19691A0540 19691A0546, 19691A0562		This paper proposes several feature selection and classification procedures for thyroid ailment diagnosis, which is one of the most critical classification issues. Two Thyroid disease refers to a set of disorders affecting the thyroid gland, which produces thyroid hormones. Hormones are in charge of controlling the pace of metabolism in the body. Hyperthyroidism and hypothyroidism are two types of thyroid diseases. They are classified. Thyroid disease is a challenging issue to resolve. The process of extracting or choosing a group of features is an important challenge in the field of pattern recognition. This is a step in the pre-processing process. As an example, consider the word sequence. The words "sequence backward selection" and "ahead selection" are used interchangeably. Two well-known heuristic approaches are utilized for feature extraction. selection, Genetics is a science. Machine learning algorithms and data mining techniques are critical in dealing with data, particularly in the health system, where there is a massive quantity of data and information to manage. In our research on thyroid illness, we used machine learning approaches. We worked on this study with data from Iraqi people, some of whom have hyperthyroid idiom and others who have hypothyroidism, with the goal of classifying thyroid illness into three categories: hyperthyroid. hypothyroidism, and normal.	Dr. K P Manikandan
14	19691A0507, 19691A0545 19691A0559	Student Digital Instance	The purpose of Student digital Instance is to assign tasks/assignments by the faculties to the students, so that they can go through the tasks/assignments and submit their tasks/assignments (as google drive link). These submissions are verified by the faculty and give the ratings for their submissions with this rating students can analyse their performance. Students can give feedback to the specified faculties by giving their details like roll number, year, branch and section. Application users can switch the theme (dark and light mode) based on their convenience. Document management system where students can upload certificates like NPTEL, Hacker rank so that it can be ease to download.	
15	19691A0541, 19691A0542 19691A0549, 19691A0553	One Way Hashing for Password Authentication	Password security has become a major worry in the current digital era. The fact that passwords are frequently the first line of defense against unauthorized access to sensitive data makes them a prime target for hackers looking to exploit security system flaws. An overview of various password attack methods and secure hashing algorithms that can be applied to counteract these assaults is given in this paper. The various password assaults include rainbow table attacks, dictionary attacks, and brute-force	Dr. R. Logesh Babu

(4)			attacks. The discussion of hashing algorithms, which can be used to secure passwords by password authentication. Some of the most used algorithms, including MDS, SHA-1, SHA-2, and SHA-3, as well as the characteristics of secure hash functions. It also briefly explains more complex algorithms like bcrypt, scrypt. and argon2. Keywords: authentication, Argon2, Scrpyt, Hashing. MD5, SHA.	
16	19691A0521, 19691A0522 19691A0534, 19691A0544	Facial Age and Gender Estimation using CNN	Facial age and gender prediction using Convolutional Neural Networks (CNNS) is a developing area in computer vision. By looking at facial features, CNNs can predict a person's age and gender accurately. This technology has practical uses, like making advertising and security systems better. In today's age of machine learning, facial age and gender prediction using CNNs is a useful tool for understanding how people act and what they like. Existing facial recognition systems for age and gender estimation have relied on traditional computer vision algorithms, which often struggle to accurately identify subtle features of a face. These methods require hand-crafted features and are limited in their ability to adapt to variations in facial expressions, lighting, and other environmental factors. As a result, there is a need for more robust and accurate facial recognition systems. Our proposed system for facial age and gender estimation uses the UTK Faces and Facial Age datasets. The UTK Faces dataset contains over 20,000 images with age and gender labels, while the Facial Age dataset as around 7.000 labelled images for age estimation. We trained our CNN model on these datasets. consisting of four convolutional layers, followed by average pooling Layers, a global average pooling layer, a fully connected layer, and a softmax output layer with ReLU activation function. The proposed CNN model achieved an accuracy of 78% on the age estimation task and an accuracy of 89% on the gender classification task, outperforming the existing state-of-the-art methods. Keywords: Facial age prediction. Gender classification, Convolutional Neural Networks CNNs). UTK Faces dataset.	Dr. R. Sundar
17	19691A0535 19691A0539, 19691A0556	Prediction of Chronic Kidney Disease using Machine Learning	Chronic Kidney Disease is one of the most critical illness nowadays and proper diagnosis is required as soon as possible. Machine learning technique has become reliable for medical treatment. With the help of a machine learning classifier algorithms, the doctor can detect the disease on time. For this perspective, Chronic Kidney Disease prediction has been discussed in this article. Chronic Kidney Disease dataset has been taken from the Kaggle. Six classifier algorithms have been applied in this research such as SVM, XG Boost, naïve bayes, logistic regression, random forest, decision tree. The important feature selection technique was also applied to the dataset. For each classifier, the results have been computed based on (i) full features, (ii) correlation-based feature selection, (iii) Wrapper method feature selection, (iv) Least absolute shrinkage and selection operator regression, (v) synthetic minority oversampling technique with least absolute shrinkage and selection operator regression selected features, (vi) synthetic minority oversampling technique with full features.	Mr. K Sathish

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			From the results, it is marked that XG Boost is giving the highest accuracy of 98.86% in synthetic minority over-sampling technique with full features. Along with accuracy, precision, recall, F-measure, area under the curve and GINI coefficient have been computed and compared results of various algorithms have been shown in the graph. Least absolute shrinkage and selection operator regression selected features with synthetic minority over-sampling technique with full features. In the synthetic minority over-sampling technique with least absolute shrinkage and selection operator selected features, again XG Boost gave the highest accuracy of 98.46%.	
18	19691A0514, 19691A05B2	Prediction of Compliance and Non Compliance of People in Fitness Apps using Deep Learning Algorithms	Wearable fitness tracker which records an individual's activity and personal health data (such as heart rate) offers the ability to healthcare professionals to remotely monitor a patient's health. Using machine learning, we would attempt to predict an individual's future health data thereby allowing preventative action to be taken early enough to correct health metrics that may trend towards undesirable values. We hope to show that personal health data collected through activity trackers can be used to predict future health information about an individual which can be used by health professionals in keeping their patients healthy. The physical exercise is utmost important for efficient growth and living of people. With increase in technology and increased demand for health cautious many developers developed fitness apps. With rise of SARS-CoV-2 pandemic fitness apps demand have further increased. The closure of gyms and curtailed outside activity fitness apps have become only way to keep people active and fit. There are certain drawbacks like most people after some months of using apps they will stop their training plans. To overcome this problem we are designing a model using deep learning to calculate the adherence and non-adherence of users which helps developers to develop training plans.	Mr. Aleemullakhan Pathan
19	19691A0571, 19691A0578 19691A05A2, 20695A0507	Bitcoin Price Prediction using ARIMA Model	Bitcoin is considered the most valuable currency in the world. Besides being highly valuable, its value has also experienced a steep increase, from around 1 dollar in 2010 to around 18000 in 2017. Then, in recent years, it has attracted considerable attention in a diverse Set of fields, including economic sand computer science. The former mainly focuses on studying how it affects the market, determining reasons behinds its price fluctuations, and predicting its Future prices. The latter mainly focuses on its vulnerabilities, scalability, and other techno crypto Economic issues. Here, we aim at revealing the usefulness of traditional [AR] auto regressive integrative moving average (ARIMA) model in predicting the future value of bitcoin by analyzing the price time series in a 7-years-long time period. On the one hand, our empirical studies reveal the that this simple scheme is efficient in sub-periods in which the behavior of the time series is almost unchanged, especially when it is used for short-Term prediction, e.g. l-day. On the other hand, when we try to train the ARIMA model to 3-years-long period, during which the bitcoin price has experienced different behaviors, or when we	

•			try to use it for a long-term prediction, we observe that t introduces large prediction errors. Especially, the ARIMA model is unable to capture the sharp fluctuations in the price, e.g. the volatility at the end of 2017. Then, it calls for more features to be extracted and used along with the price for a more accurate prediction of the price. We have further investigated he bitcoin price prediction using an ARIMA model, trained over a large data set, and a limited test window of the bitcoin price, with length w, as inputs. Our study sheds lights on the interaction of the prediction accuracy, choice of (p, g, d), and window size w. Keywords: Machine Learning, LSTM (long short-term memory) regression, lasso Regression. ARIMA (Auto regressive integrated moving average), Root Mean Square Error (RMSE), Mean Absolute Percentage Average(MAPE)	
20	19691A05H8, 20695A0512, 20695A0518	Machine learning - Based Detection of Cyberbullying	Cyberbullying is a serious issue that affects individuals of all ages, particularly clinical and teenagers who are more vulnerable to online harassment. With the growing use of social media and other online platforms, it has become increasingly important to develop effective methods to detect and prevent cyber bullying. In this project, we propose a machine learning-based approach for cyber bullying detection. The proposed system uses natural language processing (NLP) techniques to analyse text messages and identify patterns of abusive and aggressive behaviour. We apply various classification algorithms, such as Logistic Regression. Decision Trees Classifier and Gaussian Baïve bayes, to train our model and evaluate its performance. We also explore the use of ensemble methods, such as Random Forest classifier and adaboost classifier, to improve the accuracy of our model. We use publicly available datasets to test our system and compare its performance with other existing approaches. Our results show that the proposed machine learning-based approach can effectively identify cyber bullying with high accuracy, sensitivity, and specificity. This project has significant implications for the development of automated systems that can help protect individuals from online harassment and promote a safer and more inclusive online environment. Keywords: Cyberbullying. Harassment, Machine Learning. Natural Language Processing, social media analysis, Text classification, Logistic Regression, Decision Tree Classifier, Gaussian Naïve Bayes. Ensemble Methods, Adaboost classifier,	Mr. Syed Abuthahir S
21	19691A0588, 19691A0590 19691A05C3, 20695A0511	Brain stroke Detection using Machine Learning	Random Forest Classifier, Sentiment analysis and Behavioural analysis. The stroke is the world's second greatest cause of death, so it must be treated as soon as possible to avoid brain damage. Early identification of a brain stroke can help to avoid or minimize the severity of the stroke, potentially lowering mortality rates. A promising strategy is to use machine learning algorithms to identify risk variables. This research provided a model that contained an approach for predicting brain strokes accurately. To ensure the effectiveness of our suggested model, efficient data collecting. data pre-processing, and data transformation approaches have been used. A brain stroke	Mr. B. Galeebathullah

			dataset was employed to build up the model. The standardization technique is used to standardize data. In the training and testing procedure, KNN, Logistic Regression, Naïve Bias, Decision Tree, Random Forest, MLP, SVC, Cat Boost classifiers are applied. Each classifier's performance was estimated by adopting performance evaluation metrics like accuracy, fl score, precision, recall. The main idea is to mine patient's symptoms from the case sheets and train the system with the acquired data. In this project we are using the Cat boost algorithm as a new one. Based on the outcome while using Cat Boost classifiers, we can determine that our proposed model provided the maximum accuracy.	
22	19691A0573, 19691A05A1 19691A05B4, 19691A05B8	Fake Profile Identification using Machine Learning	In recent times, social media has a key position in each individual life. Everyday majority of the humans are spending their time on social media platforms. The range of accounts in those social networking sites has been dramatically increasing day-by-day and so is the number of the customers interacting with others regardless of their time and location. These social media sites have both pros and cons and also provide security troubles to us additionally for our information. To scrutinize, whore giving threats in these networking sites we want to arrange those social networking accounts	Mrs. S. Kusuma
23	19691A0565, 19691A0598 19691A05B9, 19691A05C4	Early Detection of Alzheimers Disease using CNN from MRI Scans	Alzheimer's disease (AD) is a prevalent neurological disorder that causes dementia in individuals aged 65 and above. It is critical to diagnose AD accurately and promptly to prevent the irreversible progression of the disease. This article presents a novel approach that utilizes machine learning techniques to detect AD from MRI scans, with a particular focus on the hippocampal region of the brain. The method involves extracting textural features such as entropy, homogeneity, energy, contrast, correlation, and variance from the hippocampal region using a Grayscale Co-occurrence Matrix (GLCM). Furthermore, surface and shape features are extracted using moment invariants. The proposed system employs Error-Back Propagation (EBP), Random Forest algorithm in the Artificial Neural Network (ANN) as a classifier to identify different stages of AD. The experimental results show that the proposed approach achieves an average accuracy of 95.07%.	Mr. J Nagaraj
24	19691A0584, 19691A0599 19691A05A0, 19691A05B5	Blockshein	An electronic coupon (e-coupon) is used frequently as e-commerce becomes more and more popular because of its portability and ease. The majority of e-coupon services manage e coupon data on a single server. However, due to its centralization, e-coupon services are frequently susceptible to security problems. For instance, it might be	Mrs. M Bommy

			challenging to match the user and the owner of an expired e-coupon when the information that is maintained in a centralized e-coupon server is falsified. This practice is known as double-spending. We suggest a new e-coupon service to address this problem, enhancing the service's security by utilizing a blockchain technology. To accomplish this, we must first create a server that can run the e-coupon service and interact with the blockchain network. To ensure the integrity of the e-coupon business logic and its information, we secondly create a smart contract on the blockchain system. On an IPFS blockchain system, we put the intended service into practice. Keywords: E-coupon, blockchain, smart contract, Interplanetary File System	
25	19691A0566, 19691A0574, 19691A05A9		Pancreatic Ductal Adeno Carcinoma (PDAC) is one of the deadliest cancers with around nine of patients surviving more than five years. The fourth most Groguent cancer-related cause of death in the US is pancreatic cancer, which is frequently asymptomatic in the early stages. Few tests exist that can reliably forecast the course of an illness or help with early diagnosis. To this end, biomarkers (Creatinine, LYVEI, REGIB, TFFI) have been identified important tools in the diagnosis and management of pancreatic cancer. Early-stage pancreatic cancer is typically asymptomatic and is the fourth most prevalent cancer-related cause of death in the United States. There are few tests that enable early diagnosis or precisely forecast the course of the disease. In order to achieve this, biomarkers have been recognized as crucial instruments in the detection and treatment of pancreatic cancer. Despite the fact that there are more and more	
26	19691A0570, 19691A0576 19691A05C1, 19691A05C6	Sign Images using Convolutional Neural Network	Our Proposed System represents a system to detect and classify road sign images for the purpose of developing an inventory which could assist the highway engineering tasks of maintaining and updating them. It uses images taken by the camera in a moving vehicle. It is a rapid, real-time, automated system for detecting and recognizing traffic signs that can help and relieve the driver while greatly enhancing driving comfort and safety. Automatic traffic sign detection can be useful for vehicles with autonomous intelligent driving capabilities or for driver assistance systems. Autonomous driving	Mr. Thangarasan T

			capabilities in smart cars are a major change in the auto industry. Vehicles will react based on the instructions passed. It replaces the manual driver in a vehicle. Recognition of traffic sign is an important aspect for autonomous driving. Camera placed in the vehicle captures the road sign boards on the road and they must be recognized accurately to perform the suitable action. In this project, a simple, efficient road sign image recognition system with low computational time and good accuracy is proposed. Keywords: Convolution Neural Network, Image Preprocessing, Feature Extraction, Color Segmentation, Sign Detection, Sign Classification, Region of Interest (ROI)	
27	19691A0575, 19691A05A4, 19691A05A5	Human Activity Recognition using Logistic Regression with other ML Algorithms	Human Activity Recognition is mainly about classifying the data obtained into meaningful movements. Human beings by monitoring someone's daily behavior can learn about that person's personality, the activities they are doing, the time spending on those activities and the psychological state. Following this pattern, researchers are actively researching on Activity Recognition (HAR), which aims to anticipate the human behavior using technology. From the last few decades, Human Activity Recognition became a great research topic. This project major purpose is to build a model which analyzes the human activities and then we developed a human activity classification model that recognizes human activities using video preprocessing, human motion detection, feature extraction and will classify the activities. We mainly classify the six routine activities such as walking, walking_upstairs, walking_downstairs, sitting, standing, laying by using data obtained from sensors (accelerometer and gyroscope) and activities like playing music, playing sports and workouts by using the video-based input. We are applying different machine learning algorithms as Support Vector Machine, Naïve Bayes, Random Forest, logistic regression algorithms to compare the performances and to get better model for the sensor data. In the video-based recognition we are classifying each video into percentages of each activity by taking video as input using the Convolutional Neural Network with Gated Recurrent Unit. The data is collected from the Kaggle and videos from different websites and gathered and given as dataset to our models. Many Machine Learning algorithms aids to analyze the huge dataset within a minute.	Mr. Anandaraj B
28	19691A0579, 19691A0589, 19691A0595, 19691A05B6	Weather Prediction using Superior Regression in Machine Learning	The importance of accurate weather forecasting cannot be overstated, especially in industries that rely heavily on climate conditions. With climate change becoming more prevalent, outdated weather models are becoming less effective, leading to negative impacts on both the economy and people's lives. As a result, it is essential to continually improve and modify weather forecasting methods. Large-scale wind power projects can also present safety and stability concerns, making wind power forecasting (WPF)a valuable tool for planning and preparation. This paper proposes a novel approach to short-term WPF using an extreme gradient boosting (XGBoost) model, which incorporates weather similarity analysis and feature engineering. The proposed model categorizes historical weather data uses XGBoost to make predictions for each	Mrs. V. Nirupa

			category, with unimportant features removed through feature engineering. Results demonstrate that the proposed model outperforms other methods, including Logistic Regression, Decision Tree Regression, and a single XGBoost model. Overall, the aim of this study is to develop more accurate and effective weather forecasts. The results of the proposed model are compared with the Logistic Regression, Decision Tree Regression and a single XGBoost model. It is shown that the proposed model produces the highest forecasting accuracy among all these models. The purpose of our artwork is to format effective weather forecasts. Keywords: Weather, Prediction, Regression, Decision Tree, XGBoost	
29	19691A0568, 19691A05A6 19691A05A8, 19691A05H9	Spam Transformer Model for SMS Spam Detection	As the number of people using mobile devices increasing day by day, the usage of short message service (SMS)increased drastically. This leads to increase of spam messages, the spammers try to send spam messages for their business or financial, market, credit card information and many messages which are not use full for the users. The spam messages can lead to loss and misuse of private data. In this project that is SMS Spam Detection our aim is to explore the possibility of Transformer model for detecting spam SMS messages by using the modified Transformer model. There are many content-based machine learning techniques which are proven to be effective in filtering the spam messages. Here in this project we are using machine learning and deep learning concepts Recurrent Neural Network (RNN), as well as its variants such as Long Short-Term Memory (LSTM), are applied to spam detection and proved to be extremely effective. We are using two datasets, they are SMS Spam Collection v.1 and UtkMI's Twitter Spam Detection Competition datasets, with the standard of numerous established machine learning classifiers for evaluating our modified transformer model to detect spam messages. Our proposed model on SMS spam detection shows that the modified spam Transformer has the optimal results on the accuracy and recall in comparison to other existing SMS spam detection models.	Mr. P. Kaliyamoorthi
30	19691A0583, 19691A0593 19691A0594, 19691A05C5	Discovery and Avoidance of Phishing Websites using Machine Learning	Phishing websites have become a significant security risk due to the widespread use of the internet. Phishing websites are designed to gather sensitive data from users, including passwords, identities, and transactions involving money online. Attackers employ websites that are visually and semantically similar to legitimate websites. As technology develops, phishing tactics have started to improve swiftly; this should be avoided by using anti-phishing tools to detect phishing. There are various ways to identify phishing websites. Machine learning is an effective method for detecting phishing websites. This project deals with the features extraction of the URLs and applied several machine learning approaches including Logistic Regression, KNN, SVM, Decision Tree, Random forest and Gradient Boost classifier to compare the predictive accuracy, FI score, recall, precision. The highest accuracy model gradient boost classifier is used to detect the phishing websites. Gradient boost classifier achieved an accuracy of 97.4%.	Mrs. R. Usha

31	19691A0572, 19691A0581 19691A05B7, 19691A05C2	Image Detection and Text to Speech Conversion System using NLP	Bayes, Decision Tree, Random Forest, Gradient Boost. According to the World Health Organization (WHO) 285 million people worldwide are visually impaired of are completely blind. Although there are many solutions to the reading accessibility problem for the visually impaired there remains a need for a cost-effective and accessible smart text reader to support everyday reading tasks. This paper proposes an image detection and text-to-speech conversion using Natural Language Processing (NLP). This product is built on 0CR; it enhances the input images using image processing techniques. The tesseract OCR (Optical Character Recognition) engine finds text in enhanced image and converts them into digital documents. The digital document is then analysed and whom 39 million images and converted into speech. After parsing the text is converted to speech by a TTS (text-to-speech) conversion unit. finally, the audio is given as output which will be helpful for the blind people to know the content which is present even in the images. Keywords: Tesseract OCR (Optical Character Recognition), TTS (text to speech), NILP (Natural Language Processing). Machine Learning plays a virtual role from past years in normal speech command, product recommendation as well as in medical field also. Instead of this it provides	Mr. B. S. H. Shayeez Ahamed
32	19691A0569, 19691A0591 19691A0512, 19691A0514	Stock Price Prediction using Machine Learning	better customer services and safer automobile system. This all of things shows that ML is trending technology in almost all fields so we are trying to coined up ML in our project. Stock prices are driven by corporate earnings or profit expectations. If a trader thinks that the company's earnings are high or will rise further, they will raise the price of the stock. One way for shareholders to get a return on their investment is to buy low stocks and sell them at high prices. If the company performs poorly and the value of the stock declines, the shareholder will lose some or all of his investment at the time of sale. Therefore, accurate stock price information is important. In this work, we proposed a google stock price prediction model using Recurrent Neural Network (RNN) and LSTM. Previous works on Google stack prediction have used some important techniques and models. Such as deep learning models like Artificial Neural Network (ANN) and Convolutional Neural Network (CNN) has been used for google stock movement prediction. In Stock Market Prediction, the aim is to predict the future value of the financial stocks of a company. The recent trend in stock market prediction technologies is the use of machine learning which makes predictions based on the values of current stock market indices by training on their previous values. Machine learning itself employs different models to make prediction easier and authentic. The paper focuses on the use of Regression and LSTM based Machine learning to predict stock values. Factors considered are open, close, low, high and volume. Keywords: Machine Learning, RNN, LSTM, Google, Stock	

35	19691A0564, 19691A0567		An effective hospital resource management strategy can greatly benefit from patient length of stay (LOS) prediction. There are not enough resources for all hospitals to accommodate patients who are hospitalized. LOS forecasting can assist all stakeholders with better treatment planning and expense estimation by ensuring optimized resource utilization. Traditional hospital management systems, on the other hand, frequently make mistakes that have detrimental effects on patients' care. As a result, this study suggests using machine learning to analyse patient data and create a trustworthy prediction model that incorporates the Random Forest Regression Model to determine how long a patient will stay in the hospital. A hospital discharge dataset containing records with various sorts of patient information was used as the source of the data for this investigation. For effective prediction, the model additionally makes use of to different feature selection techniques and an outlier-elimination strategy based on the	Mr. Gowtham A
34	19691A05B0, 19691A05B3 20695A0508, 20695A0509	Discover Customers Gender from Online Shopping Behaviour using Machine Learning	The online store's recommendation engine heavily relies on gender information. But consumers' reluctance to voluntarily divulge personal information creates labelling issues for gender data, which results in gender estimation findings that fall short of the requirements of the product recommendation system. The dataset provided by Vietnam FPT Group allows us to analyse the customers' online buying behavior, particularly the items viewed throughout the shopping session, to determine the gender information. More female samples than male samples make up the dataset, which is very unbalanced. We categorize the female samples into three subsets and train a two-layer classifier model to infer the gender of the clients to overcome the imbalance issue. There are several DSC (Discover Customers Gender) systems available today. These existing systems are based on various methodologies but still, it is a challenging task as some of the factors like I Trust (interpersonal trust), Product_id, Category_id, Category_name and different brands can affect a lot in the overall prediction rate. Majority of the systems work under these limitations. Keywords: Machine Learning, Data Models, Customer Privacy, Data Mining, Product Recommendation, two-layer-classifier	Mr. G. Muthugurunathan
33	19691A0577, 19691A0580 19691A0592, 19691A05A7	Credit Card Fraud Detection using Machine Learning	1 de	Ms. Ramya Palaniappan

			interquartile range. After the necessary data pre- processing, the dataset has been applied to ten different regression models as well as deep learning approaches to validate the performance of the proposed method, including the impact of feature prioritisation and outlier elimination. Additionally, to find the best regression model, a comparison of many prediction models was made using a number of performance indicators, with the Random Forest Regression model and other models included. Keywords: Machine learning, Naïve Bayes, Decision Tree, Random Forest, xgboost.	
36	19691A0597, 19691A05A3, 19691A05B1	Crop Prediction based on Characteristics of the Agricultural Environment using Various Feature Selection Techniques and Classifier	Agriculture is a growing field of research. In particular, crop prediction in agriculture is critical and is chiefly contingent upon soil and environment conditions, including rainfall, humidity, and temperature. In the past, farmers were able to decide on the crop to be cultivated, monitor its growth, and determine when it could be harvested. Today, however, rapid changes in environmental conditions have made it difficult for the farming community to continue to do so. Consequently, in recent years, machine learning techniques have taken over the task of prediction, and this work has used several of these to determine crop yield. To ensure that a given machine learning (ML)	Mrs. V. Geetha
37	19691A05F9, 19691A05G2 19691A05I7, 20695A0510	Sign Language detection using Deep Learning	Sign language is one of the oldest and most natural form of language for communication, hence we have come up with a real time method using neural networks for finger spelling based American sign language. Automatic human gesture recognition from camera images is an interesting topic for developing vision. We propose a convolution neural network (CNN) method to recognize hand gestures of human actions from an image captured by camera. The purpose is to recognize hand gestures of human task activities from a camera image. The position of hand and orientation are applied to obtain the training and testing data for the CNN. The hand is first passed through a filter and after the filter is applied where the hand is passed through a classifier which predicts the class of the hand gestures. Then the calibrated images are used to train CNN. The proposed system improves upon existing systems for recognizing ASL hand gestures which often rely on hand-crafted features and simple classifiers, resulting in low accuracy and poor performance. The proposed system is designed to be efficient and fast for real-time performance and has the potential to be a useful tool for people with hearing disabilities. Keywords: Automated	Mr. K Sathish

40	19691A05F4 19691A05F5, 19691A05I0	Sentiment Analysis on Web Scraping using Machine Learning Algorithms	accomplished by applying MOBILENET SSD algorithms which is a powerful real-time object detection algorithm. MOBILENET SSD detects an object with the help of the features of deep convolutional neural network. With the rapid growth in technology and in addition to that the circumstances of COVID-19 made most of the people to adapt to many new changes in their lifestyles. Among those changes, one of the crucial change is shifting from ordinary shopping to shop online in many e-commerce platforms. Thus, the problem of believing quality and worthiness of the products seeing online arises. To reduce the insecurity in customers about those products, the idea to provide genuine review about the products is evolved. Keywords: Sentiment Analysis, Opinion Mining, Sentiment Lexicon, Corpus, Data Collection, Data pre-processing. Feature Extraction, Support Vector Machine, Random	Ms. Arya Surendran
39	19691A0587, 19691A05E8, 19691A05I5, 19691A05I6	Animal detection in farms using Deep Learning	Agriculture is the most important sector of Indian Economy. It is the largest industry in India. but in recent years, the problem of wild animals damaging crops has become a significant social issue. Many farmers currently use guards to protect their crops, which raises overhead costs. but the rate of crop failure has dramatically increased because of the current climate. The amount of debt in the agricultural sector has skyrocketed. In these circumstances, a farmer cannot anticipate further crop destruction and cannot afford to raise farming costs. The goal of this project is to develop an algorithm to identify animals that trespass on agricultural land. Since there are so many different animals, it can be difficult to tell them apart physically. This calculation arranges animals in view of their pictures so we can screen them more proficiently and blast a Siren when the animal is detected so that the animal scatters away. This can be	Mrs.V. Geetha
38	19691A05F0, 19691A05J0, 19691A05J4, 19691A05J6	Mental Health Prediction of Employee at work Place using Machine Learning	SLD, preprocessing, hand tracking, convolutional neural networks, feature extraction, segmentation and filtering. Mental health is a critical issue in the workplace, affecting the wellbeing of employees and the productivity of organizations. Machine Learning has the potential to play a significant role in predicting mental Health issues and helping organizations to proactively address the needs of their employees. In this work we propose a machine Learning approach to predict mental health issues in the workplace using demographic and job related as input features. The performance of the model is evaluated using metrics such as accuracy, Precision and F1-Score. The result shows that the proposed approach is effective in predicting mental health issue in the workplace and has the potential to be integrated into existing HR systems to provide actionable insights. However, it is important to consider ethical and legal considerations in the use of such models. Future work can focus on incorporating additional factors and developing personalized interventions on the predictions.	Mr. K H Shabbeer Basha

41	19691A05E1, 19691A05E2, 19691A05E5, 19691A05I3	Chatbot based on Emotions using Deep Learning	Human emotions are unpredictable they change within a short period of time. Every human being desire someone to be there for them through thick and thin. Some introverts are reluctant to share their personal information with others. At that time, it's very difficult to deal with their emotions. A chatbot based on emotions helps an individual share their inner feelings and get a response that can help them overcome their emotions. The chatbot first detects human emotions and gets a response in return that improves their mental as well as physical wellbeing.	Mrs. G B Renuka
42	19691A05E7, 19691A05H6	Lung cancer detection	Lung cancer is one of the leading causes of cancer-related deaths worldwide. Early detection plays a crucial role in improving patient outcomes and survival rates. This project leverages Machine Learning (ML) techniques to develop an automated lung cancer detection system using medical imaging data (e.g., CT scans) and clinical features. The methodology involves data preprocessing, feature extraction, and the application of ML algorithms such as Convolutional Neural Networks (CNNs) for imaging data and Random Forest or Support Vector Machines (SVM) for tabular clinical data. Performance metrics like accuracy, precision, recall, F1-score, and Area Under the Receiver Operating Characteristic (ROC-AUC) curve are employed to evaluate model efficacy. The project integrates advanced image processing techniques, such as segmentation and feature extraction, to analyze lung nodules, combined with patient health data for holistic prediction. By using publicly available datasets like LIDC-IDRI or institutional data, the system demonstrates the potential of ML to assist radiologists and clinicians in early diagnosis, reducing diagnostic errors, and facilitating timely treatment. This study underscores the transformative role of AI in healthcare, offering scalable, reliable, and efficient solutions for combating lung cancer.	Dr. K Lakshmi
43	19691A05E6, 19691A05F3, 19691A05I8	Lung Cancer Prediction using Machine Learning	Lung cancer is a leading cause of cancer-related death in today's generation, affecting both young and old individuals at an alarming rate compared to other types of cancers. In this study, the accuracy of three models - Gaussian Naïve Bayes, Random Forest, and a newly developed model that combines these two - is examined to classify lung cancer in its early stage, with the aim of potentially saving many lives. The dataset used for this analysis is obtained from Kaggle and includes data from patients diagnosed with lung cancer. The findings highlight the superiority of the newly developed model in accurately classifying early-stage lung cancer cases. This could potentially have significant implications for early detection and treatment, leading to improved outcomes and potentially saving many lives. The Random Forest model also performs well, albeit slightly lower than the newly developed model, while Gaussian Naïve Bayes shows comparatively lower accuracy in this context. The experimental results reveal that the newly developed model yields the highest accuracy rate of 97.5%. Following closely is the Random Forest model with an accuracy rate of 96.85%, while Gaussian Naïve Bayes lags behind with an accuracy rate of 88.54%.	Dr. D. Jagadeesan

			In conclusion, the results of this study demonstrate the potential of the newly developed model, which combines Gaussian Naïve Bayes and Random Forest, in accurately classifying early- stage lung cancer cases. Further research and validation of this model may be warranted to explore its clinical utility in real-world settings. The findings of this study contribute to the existing body of knowledge on lung cancer classification and have implications for improving diagnosis and treatment strategies for this deadly disease.	
4	19691A05D4, 19691A05D5, 19691A05H5	Malware Simulation using Machine Learning	Malware itself indicates it is malicious software perpetrators (a person who carries out a harmful, illegal. or immoral act.) That try to attach individual computers or an entire organization's network. It mainly targets system vulnerabilities (for e.g., bugs in legitimate software like a browser or web application plugin that can be attacked(hijacked). Malware, detection is very crucial for getting early warnings on computer security regarding Malware and cyber-attacks. It helps us in keeping hackers from reaching out of our systems and secures our personal information. Malware analysis is considered to be absolutely essential for any crime ware analysis required in an organization. Even firewalls and anti-malware software may indeed do help, but sometimes it is not always enough for restriction. Traditional methods like Signature based and Behaviour based systems are most commonly used approaches for malware analysis algorithms but these approaches have some limitations like in signature based algorithm fails to detect the new threats happening in system similarly in Behaviour based algorithm gives the false predictions. Efficient performance of detection methods is vital for proper security and prevention of malwares. Consider, a decision tree algorithm in static method performance is really low but in case of hybrid method efficiency percentage is improved in peak mode. So improving performance of existing methods is necessary and much simpler than discovering new methods. So, for increasing efficiency of existing models, a hybrid approach is implemented using Ada boost classifier. Hybrid method works with the combination of two or more ML methods with the help of various optimization techniques in different aspects. Ensemble learning methods are necessary to approach hybrid methods. Ensemble Learning method provides a chance to intensify the performance of machine learning methods from the combination of various learners. This model provides a result with improved efficiency and accuracy. Ensemble learning	Dr. V. Arun

		F	Algorithm boosting techniques, removing complexity additionally increases berformance. Keywords: Machine Learning, Signature based detection, Behaviour based system, Decision Tree Classifier, Linear SVM Classifier.	
45	19691A05D0, 19691A05D1, 19691A05D2, 19691A05J5	Brain Tumour Detection from MRI	Detection and classification of brain tumors are important to better understand their mechanism. Early diagnosis of brain tumors reduces the risk of losing control over our health. It is an essential task in medical work to determine whether the tumor can become cancerous. The project "Brain Tumor Detection Using MRI Images" is aimed at developing a machine learning (ML) based approach for the automatic detection of brain tumors from magnetic resonance imaging (MRI) scans. The proposed solution will utilize a deep learning architecture that employs convolutional neural networks (CNNs) for feature extraction and classification. The dataset used for training and testing the model will consist of MRI images of brain tumors, with ground truth labels provided by expert radiologists. The developed system will be evaluated using standard metrics such as accuracy, sensitivity, specificity, and F1 score. The results will be compared to existing brain tumor detection methods to demonstrate the proposed approach's effectiveness and potential clinical utility. Overall, the project has the potential to contribute to the development of a more efficient and accurate method for the early detection of brain tumors, which can aid in timely diagnosis and treatment planning. In the proposed CNN model, we observed the average accuracy value on the training data is 98%, with an average loss value of 0.14181. However, the findings on the test data show a significant difference: the average accuracy value on the test data is 90%, with an average loss value of 0.44037.	Dr. R. Nidhya
46	19691A05G0, 19691A05G3, 20695A0517, 20695A0519	Touch Less Human Computer Interaction	The project "Touchless Human Computer Interaction" aims to provide an alternative way of interacting with computers without the need for physical contact. The system uses hand gestures as input to simulate mouse and system functions, allowing users to navigate and control their computers without touching any physical devices. Additionally, the system features an Al voice assistant to aid in basic functionalities, such as opening applications, searching the web, and adjusting settings. The project's main objectives are to provide a more convenient and accessible way of interacting with computers, particularly for people with disabilities or those who prefer touchless interaction, and to explore the potential of combining hand gesture recognition and voice assistants to enhance the user experience.	Dr. R. Logesh Babu
47	20695A0513, 20695A0514, 20695A0515, 20695A0516	Smart Intruder Detection	In this fast-moving world everything is all about using the technology to its full potential in the process of adapting to changing needs of the people. Now a days we	Dr. P. V. Venkateswara Rao

			frame and stores it in the local data base. We have also observed one important drawback using the normal cameras without any software that it is not possible to store the video feed for long time if we are storing the video feed that recorded through the days with the storage space at home we cannot even store these data for more than 3days max. To overcome these problem we have developed these software in order to overcome these problem by using our software the video feed is saved only when the motion is detected in the cameras by these we can save lot of storage. Keywords: Motion sensor, Background subtraction, Open CV, Frames, Python.	
48	19691A05C8, 19691A05G5, 19691A05H4, 19691A05H7	Driver Drowsiness Detection using Deep Learning	Driver drowsiness is a significant cause of road accidents worldwide. Several existing systems have been developed to detect drowsiness in drivers, but they have limitations in terms of accuracy, real-time detection, and invasiveness. In this paper, we propose a novel system for driver drowsiness detection using Convolutional Neural Networks (CNN) and OpenCV. The system collects a dataset of images of drivers with varying levels of alertness and drowsiness, preprocesses them to improve their quality. and extracts features using a CNN architecture. The model is then trained on the dataset using supervised learning and used to detect drowsiness in real-time by monitoring the driver's face using a camera. The system triggers an alert if it detects drowsiness, and the alert can be designed to be non-invasive, such as an alarm or vibration. The proposed system has several advantages over existing systems, including high accuracy, real-time detection, non-invasiveness, and efficiency. The system can help reduce the number of accidents caused by drowsy driving, making roads safer for everyone. The images in the dataset are then preprocessed to improve their quality and eliminate noise. This includes resizing, cropping, and grayscale conversion to ensure that the images have a consistent size and format. The images are also normalized to reduce the effect of variations in illumination, and to prepare them for feature extraction. The alert system is designed to be non-invasive and not distract the driver further, such as an alarm or vibration. Once the driver takes a break and is alert again, the system resumes monitoring.	Dr. R. Sudhakar
49	19691A05G6, 19691A05G7 19691A05G8, 19691A05H2	Critical Analysis of Heart Attack Disease Prediction using Supervised Learning Algorithms	Machine Learning is one of the emerging fields of Artificial Intelligence and it has many applications. It is a tool that uses data and Artificial Intelligence in its areas of application. The main idea behind the development of machine learning algorithms is to create a model that understands and analyzes the given data and helps in prediction. Machine learning methods can be applied to various domains. The recent lockdown caused by the Covid outbreak witnessed a sudden increase in online transactions. Heart attack occurs when something stops the blood flow to your heart therefore it can't receive the oxygen it needs. Recent studies show that the number of deaths due to heart attacks have increased seriously, and majority of the deaths are mainly due to sudden	Dr. G. N. Vivekananda

motion(person)has left the area. These also saves the video feed of motion frame by

50	19691A05F1, 19691A05F8, 19691A05G4, 19691A05G9	Water Quality Prediction using Machine Learning	heart attacks. The main aim of this study is to predict the occurrences of heart attack before itself so that we can reduce the chances of death in order to lead a happy life. The outcome of this study is to develop the heart attack prediction system where it can identify the hidden reasons for its occurrences with the help of machine learning algorithms. Keywords: Logistic Regression, Random Forest, Decision Tree, SVM (Support Vector Machine), KNN (K-Nearest Neighbor), Heart attack, Disease prediction. It is fundamental that every human being should get drinking water without contamination. As we know that health is wealth. To maintain g00d health, one should have non polluted drinking water which is becoming one of the major problems. Quality of water is one of the crucial elements in accurately predicting human health. Water quality management is crucial for people's health and development at all levels including local, regional, and national. It's terrible that in some areas people have to pay for drinking water. Both the public and the government will be benefited if they receive regular reports on the state of the water including clement composition and their levels for all areas. If the people have water quality reports, then they can take the necessary steps to take precautions. Here, we're attempting to create a machine learning model to forecast the water quality based on the elements' composition and their concentrations. Additionally, we provide users with an online interface where they can know about the water quality at each location. They can also get safety advice and remedies to the effects of water contamination. Reducing water contamination and use of polluted waters will be made easier by this study.	Dr. K. Sudhakar
51	19691A05D6, 19691A05I9, 19691A05J3	Application for Detecting DDOS Attacks in SDN	SDN, or software-defined network, is a network architecture that is used to digitally build and manufacture hardware components. Dynamically altering the network connection settings is possible. Dynamic change is not possible in the conventional network since the link is fixed. Although SDN is a fantastic solution, DDoS attacks can still occur. The DDoS attack puts the internet in danger. DDoS attacks can be prevented using the machine learning algorithm. When several systems collaborate to simultaneously target a single host, it is known as a DDoS attack. In SDN, software from the control layer, which lies between the application and infrastructure levels, is used to govern the devices in the infrastructure layer. In this paper, we present a machine learning approach called Decision Tree to detect dangerous texts. The outcomes of our research show that the Decision Tree is capable of determining if an assault is secure or not. Keywords: SDN, attacks, DDoS, Decision Tree	Dr. D. J. Ashpin Pabi
52	19691A05E3, 19691A05F7, 19691A05H3	Securing Product Integrity with Blockchain based	Recent years have seen a sharp rise in fake goods, posing a severe threat to consumers, manufacturers, and the economy. Blockchain technology is used to ensure product traceability and authenticity in order to avoid counterfeit goods. By using that, we create QR codes for each product and store them on the blockchain. We can then use	Dr. K P Manikandan

		Verification Solutions	those QR codes to check whether a product is fake or not having details be validated against our records. If the verification process is unsuccessful, the product is fraudulent. Else Product is Authentic. We are building a platform that will be open, accessible and one piece of software at a time and Customer can get Blockchain-based Product Products. Blockchain-based Product Products are, the digital QR Code and registered on the Ethereum Blockchain that will be cryptographically signed and tamper proof). Another person can view the QR Code online, and no 3rd party validation is required for these digital QR Codes.	
53	19691A05F2, 19691A05H0	Accident Detection using Smart Phone Sensors	The biggest bad thing that can happen to someone is getting in a car accident, which could kill them or hurt them really badly. The car industry has worked hard to fix the problem, but there's still a chance of getting hurt in a crash. Our app helps detect accidents and quickly notifies the police and ambulance. It is a fast solution to this problem. Cell phones can be used to find out about accidents because they are easy to get and are electronic machines. To detect accidents, we use an Android phone that has a tool (called an accelerometer) built inside it. The phone will check how fast it's moving to know if there's been a crash. The limit is decided by things like how fast something is shaking and how tall it is. If your phone goes too fast and crashes, an app will send a message to the police, ambulance, and people you chose to help. It will also tell where the crash happened. Sound meters are like accelerometers, they help find out how loud a vehicle is. If there was a loud noise from a crash, a special machine could hear it. If it was really loud, a computer program would work like it should. Keywords: Accelerometer, Sound meter, GPS and SMS alert, Crash detection, android smartphones.	Dr. S Elango
54	19691A05C9, 19691A05D8, 19691A05D9, 19691A05G1	Machine Learning Classification Models for Diabetes Prediction	Diabetes is a chronic disease that affects millions of people worldwide. Early Ideation and accurate prediction of diabetics are critical for effective treatment and prevention of complications. Machine learning techniques have emerged as a promising approach for diabetes prediction, leveraging the power of data analytics to identify risk factors and patterns that can help in early diagnosis and intervention. This project is a comprehensive study on diabetes prediction using machine learning techniques. We compare and evaluate the performance of five different algorithms, including Decision Tree, Random Forest, Naive Bayes, K-Nearest Neighbours, and Support Vector Machine, using a real-world dataset of patients diagnosed with diabetes. We also propose novel ensemble approach that combines the strengths of these algorithms to improve the accuracy of prediction.	Dr. G. Arun Kumar
55	19691A05D7, 19691A05H1, 19691A05J1, 19691A05J2	Stress Detection using Machine Learning and Image Processing	Our project's primary goal is to identify signs of stress in IT professionals utilizing sophisticated machine learning and image processing methods. Our system is an improved version of the old stress detection systems that excluded live detection and personal counselling, but this system includes live detection and periodic analysis of employees and detects physical and mental stress levels in him/her by providing them	Dr. R. Sundar

			with suitable stress management techniques by providing survey form periodically. Our method primarily focuses on stress management, creating a healthy and spontaneous work atmosphere for the employees, and getting the best performance out of them during working hours. We used image processing techniques to extract several facial traits like wrinkles, eye bags, and brow strain. Then, we classified the photos as strained or not stressed using machine learning techniques to analyse these aspects. On a sample of IT workers, we tested our method, and we were able to identify stress with an accuracy of 89%. Our suggested method can be applied to real-world situations to identify stress in IT professionals and offer prompt treatments to enhance their productivity and wellbeing.	
56	19699A0535, 19699A0551, 19699A0556, 19699A0560	Text Summarization using NLP	Nowadays, it is a time-consuming process for youth to gain information from various sources in their busy lives The proposed system mainly focuses on scraping data from the websites documents and provides summary to the users. It also provides flexibility to the users to enter the website of their choice. The proposed system for text summarization undergoes a sequence of steps starting from data extraction, removal of irrelevant information, highlighting on the importance of particular data extracted from a website or a text document. Relevant information is selected from the extracted data by using natural language processing. The proposed project reduces the users surfing time by providing the summary of a website or a text document.	Mrs.A.Komala
57	19699A0514, 19699A0537, 20690A0501, 20690A0504	Software Employee Promotion Analysis using Machine Learning	Employee attrition refers to the natural reduction in the employees in an organization due to many unavoidable factors. Employee attrition results in a massive loss for an organization. The Society for Human Resource Management (SHRM) determines that is the average cost-per-hire for a new employee. According to recent stats, 57.3% is the attrition rate in the year 2021. The applied machine learning techniques achieved accuracy scores of 87% by SVM technique, 93%. This Project concentrates on collecting data about employees, generating a decision tree from the historical data, testing the decision tree with attributes of an employee and generating the output as whether to give the promotion or not. This information is compared with the trained dataset stored in the decision tree. The final goal node is to determine whether the employee will get yearly increment, promotion or not the proposed optimized Decision Trees Classifier (DTC) approach achieved an accuracy score of up to 95% for employee attrition prediction, employees, generating a decision tree from the historical data, testing the decision tree with attributes of an employee and generating the output as whether to give the promotion or not. The information about an employee is collected by using the user interface. This information is compared with the trained data stored in the decision tree. The final goal node is to determine whether the employee will get yearly increment, Promotion or not.	Mr. Syed Abuthahir S

58	19699A0504, 19699A0518, 19699A0519, 19699A0520	Deep Learning based safe Trade Recommender System	2017-2022. It simply involves trying to estimate the future value of the company's current stocks in order to minimize losses or perhaps make a profit. The project will predict stock prices of next 21 days. In this project we have predicted for three companies they are Amazon, Microsoft and Google. This Project predicts and recommends to the user when to buy and when to sell the stocks and also tells how much returns the user will be getting for invested amount of each company. The main purpose of this paper is to provide a stock recommender system which will make the job easier for the investors in the stock market.	Mr. B. Galeebathullah
59	19699A0513, 19699A0517, 19699A0524, 19699A0544	GrowSmart - An ML based Intelligent Recommendation System for Crops and Fertilizers	Agriculture is a major source of income and employment in India. The most prevalent problem faced by Indian farmers is that they do not select the appropriate crop for their land and do not use the appropriate fertilizer. They will experience a significant drop in production as a result of this. GrowSmart has been used to solve the farmers difficulties. GrowSmart is a modern farming strategy that employs research data on soil properties, soil types, and crop yield statistics to recommend the best crop to farmers as well as fertilizer recommendations. This decreases the number of times a crop is chosen incorrectly and increases productivity. The aim of this analysis is to develop a system which helps the farmers to recommend a crop for the site-specific parameters with high accuracy and efficiency with the help Machine Learning (ML)approaches.	Mrs. S. Kusuma
60	19699A0527, 19699A0539 19699A0547,19 699A0553	Personal Loan Fraud Detection using Machine Learning	We have been seeing a sensational increment in individual credit for utilization, due to the fast advancement of e-administrations, including internet business, e-finance furthermore, and portable installments. This coming about because of the absence of powerful lattice confirmation and management, it definitely prompts large-scale misfortunes brought about by credit advance extortion. Considering the trouble of manual examination and confirmation on the enormous measure of Mastercard exchanges, AI strategies are usually used to naturally identify deceitful exchanges. We are using different algorithms like the XG Boost classifier, KNN classifier, etc. In these algorithms, we will pick the best classifier which gives more accuracy.	
61	19699A0501, 19699A0503, 20690A0505	Realtime Object Detection with Voice Prompt using YOLOv7	Millions of people worldwide struggle to grasp their surroundings owing to visual impairment. Around 285 million individuals have visual impairments, of which 246 million have a decline in visual perceptivity and 39 million are eyeless, according to the World Health Organization. They can acclimatize to different strategies to deal with daily chores, but they also have social awkwardness and nautical problems. They have an extremely hard time conforming to strange terrain. Although self-driving cars may	Mrs. M Bommy

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			still struggle to distinguish between people and other moving objects, the incredible strides that cutting-edge object discovery models have made over the past ten years are in no way diminished. Recent times have seen a rapid-fire development of computer vision technology, in particular the Deep Convolutional Neural Network. The use of slice-edge computers offers the possibility of helping those who suffer from sight loss. In this design, we used the sense of hearing in order to visualize the object kept before the person and the camera. We used the state-of-the-art "You Only Look Once Unified, Real-Time Object Discovery" YOLOv7 algorithm trained on the COCO dataset to identify the object present before the person. We calculate the labels (bounding boxes), and confidence levels of the object in the frame and have the detected text result as an audio speech using JavaScript Speech Synthesis, which can be employed in numerous areas like Autonomous vehicles, Robotics and can also assist visually crippled persons.	
62	19699A0505, 19699A0508, 19699A0509, 19699A0531	Early Stage Prediction of Lung Cancer using Deep Learning	Lung cancer is a deadly disease that affects the lungs and can cause abnormal cell growth. It is a significant cause of death worldwide and can be caused by various factors such as exposure to radon, air pollution, or occupational hazards. Signs of lung cancer could manifest as symptoms such as coughing, chest discomfort, and breathing difficulties. Unfortunately, lung cancer often goes undetected until it has reached an advanced stage, making early diagnosis and treatment crucial for improving patient outcomes. This project presents a novel approach for early-stage prediction of lung cancer using deep learning techniques, specifically a combination of convolutional neural networks (CNNs) and long short-term memory (LSTM) networks. In this project a sophisticated computer-aided diagnosis (CAD) system is created utilizing deep learning techniques to accurately extract information from CT scan images, enabling accurate and timely diagnosis of lung cancer. The proposed model takes in CT scan images of patients' lungs and processes them through a CNN to extract features, which are then fed into an LSTM network to classify and make predictions whether the patient is Normal or has the Benign or Malignant Cancer.	Mr. G. Sreenivasulu
63	19699A0511, 19699A0512, 19699A0522, 19699A0523	A self Diagnostic Healthcare Chatbot using Machine Learning	In recent years, web applications and websites, which also includes chatbots, were widely used by people. AI Chatbots were considered baseless and ineffective before their invention. There are unique features of a Chatbot that made a survival path in today's businesses and organizations. Those features include conversations that should feel unique, interesting and informative. Globally the usage of Chatbots have increased because of these unique elements. In NLP field, the conversational Chatbot development using AI technologies is a fascinating problem. In many research areas, the major development projects are using AI and ML technologies to develop Chatbots that gives instant replies to user. The proposed idea is to develop a medical chatbot using AI which will answers the queries of users regarding health issues. The Chatbot will provide basic details about the disease so that the user will be aware of disease and can treat the disease by using medications before consulting a doctor. This work aims	Mr. Thangarasan T

*,			at providing one-on-one interaction with communication between chatbot and patient. The designed chatbot takes an user-friendly approach towards the patient and even provide voice translation of text in case user cannot read the text given by chatbot. The accessibility to medical knowledge will be improved and healthcare costs of user will be reduced • Keywords: Artificial Intelligence, Machine Learning, Natural Language Processing(NLP), Chatbot, Text Classification.	
64	19699A0545, 19699A0552, 19699A0558, 19699A0559	Electric Vehicles Charging Load Forecasting and Scheduling using Deep Learning	Over the past few years, there has been a significant surge in the research and development of electric vehicles (EVs) that has captured the attention of both industry and academia. With an increasing number of EV registrations, the issue of long wait times at crowded charging stations has become a concern, potentially deterring drivers from making the switch to EVs. To address these challenges, we propose a novel dynamic pricing policy that allows charging stations to adjust their service fees in real-time based on the load at the stations. Our project aims to schedule EV charging times by utilizing deep learning models such as RNNs and CNNs to forecast the load. This results in an algorithm for load forecasting, dynamic pricing, and EV charging time scheduling. Our algorithm is evaluated using real-world e-charge dataset, and the intelligent control of charging processes can help to reduce peak loads and corresponding fees. Additionally, the use of a dynamic pricing scheme encourages customers to provide as much flexibility as possible. This study proposes a framework for setting dynamic price offers for different charging deadlines and scheduling charging processes to maximize the charging station operator's daily profit and reduce the peak of the electrical load. To the best of our knowledge, this is the first work that considers dynamic service fees across various charging stations to balance loads and reduce queueing delays, making our work more practical and advantageous. Key words: EV, RNN's, CNN's, Dynamic Pricing, Load Forecasting, EV's Charging time scheduling.	Mr. Anandaraj B
65	19699A0533, 20690A0503	Traffic Prediction for Intelligent Transportation System using ML	The most important challenge to sustainable mobility is persistent congestions of differing strength and duration in the dense transport networks. The standard Adaptive Traffic Signal Control cannot properly address this kind of congestion. Deep learning-based mechanisms have proved their significance to anticipate in adjective outcomes to improve the decision making on the predictions of traffic length. The deep learning models have long been used in many application domains which needed the identification and prioritization of adverse factors for a simplifying human life. Several methods are being popularly used to handle real time problems occurring from traffic congestion. This study demonstrates the capability of DL models to overcome the traffic congestion by simply allowing the vehicles through a signal depending on the length of vehicles. Our proposed method integrates a numeral of approach, intended to advance the cooperativeness of the explore operation. In this work, we implement the application to detect the number of vehicles in the images from the user and give	Mrs. V. Nirupa

			vehicles counts. To detect the vehicles count here we are using the YOLO pre-trained weights. Keywords: Traffic, YOLO, Deep Learning.	
66	19699A0540, 19699A0542, 19699A0548, 19699A0549	Classification of Alzheimer's Disease using Deep Learning	Alzheimer's disease is the most common form of dementia. It is a neurodegenerative brain order that has currently no cure for it. Alzheimer's disease is more common in people over the age of 65, but some people have early onset Alzheimer's disease and show symptoms as early as their 40s or 50s. The accurate diagnosis of Alzheimer's disease plays a significant role in patient care, especially at the early stage. Progression of Alzheimer's disease can be slow down by diagnosing at early stage. In this project brain MRI images are used for diagnosing Alzheimer's disease. Now a days deep learning is getting more attention in solving real world problems, especially problems related to health. Convolutional neural network (CNN) is a deep learning model mostly used for image classification. In this project ResNet 152V2, a pre-trained CNN model used for classifying brain MRI images into Nondemented, Very Mild Demented, Mild Demented, Moderate Demented. This categorization tells severeness of Alzheimer's disease. Key words: CNN, ResNet152V2, Brain MRI images.	Mr. P. Kaliyamoorthi
67	19699A0516, 19699A0530, 19699A0536	Bone Fracture Classification using SVM and CNN	Bone fractures are a frequent medical problem, and accurate treatment planning depends on accurate diagnosis and classification. Planning an efficient course of therapy for bone fractures, a frequent medical condition, requires accurate diagnosis and classification. In this study, we present a convolutional neural network(CNN) and support vector machine (SVM) based bone fracture classification system. The suggested approach uses a CNN to extract attributes from X-ray pictures before classifying the data with an SVM. After using a large dataset of X-ray pictures to train the CNNs, we take the features out of the convolutional layers. Support vector machines (SVM) and convolutional neural networks (CNN) are useful image processing techniques in the medical areas. These attributes are subsequently provided as input to the SVM classifier. The outcomes show that classification and diagnosis of bone fractures may be carried out utilising deep learning techniques. A deep neural network model has been created in the current study to categorize fractured and healthy bone. The tiny data set leads to an overfitting of the deep learning model. As a result, methods for enhancing data have been applied to expand the data collection. Softmax and Adam optimizer have been used in the trials to measure the model's performance. Keywords: Convolutional neural networks, support vector machines, classification, bone fracture, kernel function, image processing and X rays deep learnines.	
68	19699A0502, 19699A0526 19699A0554, 19699A0555	Skin Cancer Detection using Deep Learning	Skin cancer is one of the most dangerous of all cancers. When it is not diagnosed and handled at the beginning, it is supposed to extend to other areas of the body. It also occurs while the tissue is revealed to light from the sun, mainly due to the rapid development of skin cells. For early detection, a dependable automated system for skin	Mr. B. S. H. Shayeez

			lesion recognition is absolutely mandatory in order to minimize effort, time and human life. Both image processing and deep learning are used in the technique for successful treatment of skin cancer. Also the performance and ability of deep convolutional neural networks is observed. The dataset contains clinical types of skin cancers such as melanoma, vascular lesions, benign, keratosis, carcinoma. The diagnosing methodology uses concept of image processing and deep learning. Through using different tactics of image augmention, the number of images has also been enriched.	
69	19699A0507, 19699A0557	Finger Print Dial by ARDUINO	In general, we have the fingerprint unlock to our mobiles in the display itself. We are using the speed dial in the calling app to call easily. Based on this, the project is used to be done. The fingerprint of every finger is unique, and it will not match any other fingerprint in the world. Taking this as a key, we register each finger of the user to a phone number. The project is taken from the base of the speed dial system in the mobile phone. The speed dial system is used for opening the app and the user should hold the number registered number in the keypad on the mobile. The major drawback of the speed dial system is it takes time to dial a number in emergencies. This can be replaced with the "fingerprint dial". The project makes the user call a phone number with his/her fingerprint. When the user places his finger on the fingerprint sensor, the call procedures to the respective number registered with a finger. This can be used in emergencies and for the important persons that we frequently used to call. We can add emergency numbers like 100,104,108 etc. to some of the user's fingerprints and make a call easily in the emergencies.	Ms. G. Vasundara Devi
70	19699A0506, 19699A0510, 19699A0528, 19699A0543	Analysis of Facial Sentiments in a Deep Learning way	Facial sentiment analysis involves the use of computer vision techniques to analyze facial expressions and recognize the emotional states of individuals. In this project, we propose a deep learning-based facial sentiment analysis system that can accurately recognize and interpret human emotions and sentiments from facial expressions. Our system uses a convolutional neural network (CNN) architecture and is trained and evaluated on a large dataset of images with annotated emotional labels. We compared the performance of three popular CNN models (MobileNet, ResNet50, and VGG16) and demonstrated that our system achieves highly accurate results with all three models. Additionally, we implemented a live prediction system that can recognize and interpret facial expressions in real-time using the trained CNN models. The proposed system has significant potential applications in various fields, including market research, human-computer interaction, medical diagnosis, and security. The project also addresses ethical concerns related to privacy, consent, and fairness in the use of facial sentiment analysis.	Ms. Ramya Palaniappan
71	19699A0525, 19699A0532, 19699A0534	Credit Card Fraud Detection using ADABOOST Algorithm	Credit Cards are quite often used for online payments. But due to a lot of loopholes, many issues come up in this system. As a result, the industry and customers who use credit cards suffer an enormous loss. The scams of recent years are accomplished using credit cards. Detection and prevention of fraud are very challenging for credit	Mr. G. Muthugurunathan

			cardholders. In the proposed System, machine learning algorithms are applied to data on all credit card fraud detection, and the power of Decision tree, Random Forest, Xgboost, and Adaboost machine learning algorithms is compared for detecting fraud with credit cards. We will illustrate that, when compared to Random Forest and decision tree algorithms, the accuracy of XgBoost and AdaBoost machine learning algorithms is higher. The results determined from pre-processing the dataset give an accuracy of above 95%. Keywords: Credit Card Fraud Detection, Decision Tree, Random Forest Algorithm, Xgboost Algorithm, AdaBoost Algorithm.	
72	19699A0515, 19699A0538, 19699A0550, 20690A0502	Stress Detection based on Social Media Blogs	Stress, anxiety, and other serious psychological health issues are a direct outcome of technology innovation and the considerable increase in social media usage. These difficulties can be broken-down and anticipation methodologies can be figured out. Because of people's strong desire for SMEs (Social Media Environments), traditional methods such as questionnaires and interviews were conducted by psychologists, but these processes time-consuming and hysterical. In this paper, we have studied different stress discovery techniques and viewed them as incapable of identifying stress from online entertainment. Metaphysics is the catchphrase matching hunt process utilized in web-based entertainment to recognize the stress related messages divided between people with further developed precision.	Mr. Gowtham A

Project Coordinator

Head of the Department