	Dept: MCA	Guide:Prof. Ramesha K	AY : 2024-25
Project No	**Project title :BEESAFE:Predicting Antimicrobial Property of Honey**	**Students Name :Ananya B**	
1	Abstract: The honey, a viscous fluid which is produced by honeybees from the flower nectar. It has been widely used as sweetening agent and also in medicines due to its therapeutic actions. It is an antioxidant, antimicrobial, anti-inflammatory and an antimicrobial due to the various physicochemical parameters. The ancient approach to the access to the quality of honey is time-consuming, and it could involve human error. The quality of honey can also be identified without the use of laboratory tests by creating the Machine Learning(ML) model. The ML model categorises the honey as low, medium or high activity levels based on physicochemical parameters such as pH, moisture, phenolic content and more. After that it goes for sugar quality analysis based on fructose, sucrose etc contents as low, medium or high and finally provides the overall grade of honey as grade A, grade B or grade C as it suggests for the use of honey either in food or medicine. So, this two-step analysis helps for efficient classification and improved honey quality control. Keywords: Physicochemical Parameters, Sugar Content Analysis, Antimicrobial Activity, Honey Quality Analysis, Grading System, Natural Antimicrobial Agent.		
2	**Project title**	**Guide:Prof. Neema H**	AY : 2024-25
	DeepMediScan: Intelligent Detection of Forged Chest X-ray Images	**Students Name :Arpitha S**	
	Abstract: In the modern digitalized healthcare environment, medical images are the leading center of diagnosis, treatment planning, and patient records maintenance. But those are unreli able since they are manipulated or forged resulting in malpractice and misdiagnosis. The proposed project presents a DL architecture to provide protection mechanism to the chest X-ray images against forgery. With CNNs, the model will learn complex patterns and iden tify the inconsistencies in the picture, which can be brought by manipulating techniques like splicing, cloning, and editing. It is both trained on real and synthetically modified data, so it can generalize well to forgery techniques across a wide choice of methods. Thesystemproduces a direct binary answer authentic or forged with an easy to use interface to upload images and easily get the results. It is technologically fitted to be used in real-time application, so it can be directly utilised in clinical workflow by the medical professionals. Combining technologies of advanced DL and medical care data integrity this solution not only adds another level of trust and reliability, but also becomes a critical secure choice in modern digital medical imaging. Keywords: Medical image forgery, healthcare security, tampering detection, Convo lutional Neural Networks, Real-Time Data Processing.		
3	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Enhancing Image Clarity with Neural Network-Based Denoising Autoencoder	**Students Name :Bhuvan Shetty**	

	Abstract: Face images frequently suffer from motion blur and noise due to low light, movement, or camera instability, affecting their clarity and reliability. This work presents a deep learning-based face deblurring model built on a Residual U-Net enhanced with Convolutional Block Attention Modules (CBAM). The architecture integrates residual blocks for stable training and improved feature retention. A hybrid loss function combines pixel-wise error & perceptual loss derived from a pretrained Visual Geometry Group (VGG16) network, with multi-scale supervision aiding fine-detail reconstruction. The model is trained on synthetically blurred images from the CelebA dataset. Preprocessing techniques such as Contrast Limited Adaptive Histogram Equalization (CLAHE), denoising & unsharp masking are applied during inference to boost visual quality. The final TensorFlow model is deployed using Flask, Gunicorn & Docker, supported by a responsive frontend built with Three.js. Evaluation is done using PSNR, SSIM, MAE & MSE show promising improvements in sharpness and facial structure restoration. Keywords: CBAM, Face Deblurring, VGG16, Perceptual Loss, Image Processing, U-Net.		
4	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	AI based fraud detection in banking transaction	**Students Name:Biya Johnson**	
	Abstract: In today's world of online banking, fraud is a crucial problem. The traditional methods of identifying fraud are not fast enough to catch the new types of fraud. This project uses Artificial Intelligence (AI) to find fraud in banking transactions. The AI system learns from historical transactions and identifies the patterns to spot suspicious activities.Using Ma chine Learning(ML), it can quickly decide if the transaction is safe or fraudulent. It helps banks to keep the customer accounts secure and reduce the money loss. The main goal is to grow a smart and efficient system to detect fraud in real-time.The system is trained using actual or sample data to improve its accuracy. It examines details such as transaction amount, type, and location to identify any anomalies. The model can be frequently updated to detect new types of fraud.A simple and easy-to-use interface is provided to display the results. This system assists banks in establishing trust and ensuring the security of online transactions. Keywords: Online Banking, Fraud Detection, Real-Time Detection, Anomaly Detection, Banking Transactions, Transaction Patterns		
5	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	Used Car Price Prediction Using Machine Learning	**Students Name: Chandan Kumar P**	
	Abstract: To determine the fair market value of used automobiles, the system uses past sales data as well as vehicle (cars) parameters including make, model, year of manufacture, mileage, fuel type, gearbox, and ownership information. In order to minimize subjectivity in valuation, detect pricing patterns, and guarantee transparency for both buyers and sellers, artificially intelligent ML algorithms are created. The project's goals are to standardize the automobile valuation procedure, provide an accurate pricing prediction model, and offer real-time insights on vehicle compliance elements including insurance, PUC, and service history. A Flask-based web application that incorporates visualization tools and real-time compliance monitoring is used to construct the system. As a result of this effort, the used automobile market is now more		

	efficient and trustworthy thanks to a dependable, automated, and user friendly platform that helps stakeholders make wise decisions. Keywords: ComplianceMonitoring, Vehicle Valuation, Data Analytics, Ensemble Models, Predictive Modeling, Real-Time Insights.		
6	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	Deep learning for age and gender estimation	**Students Name:Darshan V**	
	Abstract: Measuring age and gender from facial photos for security personalized services, and demographic statistics.A deep learning-based approach for precise gender and age identification from a single facial image is proposed in this paper. Preprocessing is done using recognition of faces, cleaning, standardization, and dataset splitting on a dataset of 3,000 different photos from Kaggle. For age regression and gender categorization, the model makes use of a Convolutional Neural Network (CNN) with ResNet along with pre-trained networks and EfficientNet. Adaptive optimizers (Adam/AdamW) and substantial data enhancement (flips, cycles, cropping, color changes, and occlusion handling) are used to increase accuracy. Checkpointing based on validation minimizes overfitting and maintains the optimal model. Using OpenCV to recognize faces, preprocessing them, and Inference is the process of giving rise to a trained model. The photo that was entered is shown with predictions. The system supports both GPU-accelerated real-time applications and CPU-based demonstrations. Keywords: Age Estimation, Gender Classification, Deep Learning, CNN, ResNet, EfficientNet, OpenCV, Real-Time Prediction		
7	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	AI-Powered Vehicle Efficiency Optimizer	**Students Name:H S Krupa**	
	ABSTRACT Rising fuel costs and environmental concerns make fuel efficiency an important consideration for vehicle owners. To assist customers in estimating fuel usage and making better driving decisions, created an AI-powered prediction tool. it accepts characteristics such as make, model, year, class, cylinders, displacement, fuel type, drive type, transmission, and city/highway MPG. these are examined using these algorithms random forest, gradient boosting, and linear regression. the tool has a simple web interface with a prediction form. it estimates whether the car's fuel efficiency (MPG) is low or high and makes an informed suggestion about whether to buy or sell the vehicle. this approach is valuable for buyers, sellers, and car owners who want to understand performance and make environmentally conscious decisions. Keywords: Fuel Efficiency, Linear Regression, Vehicle Efficiency Prediction, Machine Learning.		
8	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	Smart Loan Approval System Using Machine Learning	**Students Name:Jayashree N**	
	Abstract Financial institutions must use the loan eligibility evaluation method in order to lower risk and ensure responsible lending. Conventional evaluation techniques are frequently man ual, time-consuming, and based on rigid rule-based criteria, which makes them ineffective and inaccessible to many users. A machine learning(ML)-based loan eligibility prediction system is		

	proposed in this project to automate and increase the accuracy of eligibility eval uations. Age, gender, education, income, credit history, employment history, loan amount, interest rate, CIBIL score, and past defaultsare only a handful of the financial and demo graphic factors that the system looks at using a trained machine learning model to decide whether a loan applicant is eligible for approval. Keywords: Loan Eligibility, Machine Learning, Loan Prediction System, CIBIL Score, Credit Score, Classification Model.		
9	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	EduCluster: Bridging Learning Needs and Resources	**Students Name: Jenita Venita Dcosta**	
	Abstract Traditional teaching methods frequently fall short of meeting the unique needs and learning preferences of a diverse student body in the quickly changing educational era. By creating a strong, machine-learning powered educational platform encourages individualized learning and effective resource management, the 'EduCluster' platform project seeks to overcome these constraints. The primary issue identified by 'EduCluster' is the absence of some efficient mechanisms for classifying students according to their behavior, suggesting courses to them based on that classification, and providing access to study materials. "EduCluster" uses an unsupervised machine-learning algorithm called K-means clustering to address this problem by classifying students into clusters according to their learning styles. Which makes it possible for recommending customized courses for each learner according their learning behavior. The platform is implemented using "Python","MySql" and scikit-learn. Platform provides the access to both admin as well as learners where the admin can perform the tasks related to the courses, domains, applications and study materials. This system improves the learning process of students and delivers the customized suggestion of courses. Keywords: Personalized Laerning,K-means Clustering, Course Recommendation. Student Segmentation, EduCluster.		
10	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Melodia: Dynamic Music Recommendation Platform	**Students Name: Jovita Reema Dcosta**	
	Abstract Melodia is an intelligent, emotionally intelligent music suggestion engine that offers a customized, engaging hearing moment. By analyzing input from text, responses, and gestures, Melodia determines what state of mind, traditional music platforms that mostly concentrate on user past behavior or current styles. The system chooses songs based on the user's mood using sophisticated AI algorithms and NLP, making sure that each suggestion speaks personally. Actual advice and easy use are made possible by the user application's dynamic and simple structure. Melodia improves its suggestions to unique tastes by continually learning from user decisions and opinions. Melodia's integration of MLaswell as emotion recognition transforms listening to music into a regular habit into a customized, customized one that promotes positive emotions and strengthens the bond within listeners and what they love. Keywords: MusicRecommendation, ML,NLP,EmotionDetection, PersonalizedExperience.		
11	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	Travel Booking Website With Real-Time	**Students Name: K Shree Ranjan**	

	Pricing and Reviews		
	Abstract : The travel and tourism sector is undergoing a fast evolution in the current digital era based on changing consumer expectations and technological growth. Travelers now demand hustle-free, hassle-free trips when making their arrangements at selection of destinations through booking of accommodations and planning. itineraries. Nevertheless, the standard processes are likely to give confusion through the load of information, changing prices and so on. unreliable reviews. This paper presents Travel booking website, a web-based platform that integrates real-time pricing, verified user reviews, and secure booking features to move the way users plan travel. By providing live data from travel providers and a responsive interface, the system enhances transparency, accuracy, and user satisfaction in travel planning. Keywords: Travel booking, Real-time pricing, Travel packages, User reviews, Web development, UX design.		
12	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	AgroWaste: Automated Recycling Solution for Agri-Waste	**Students Name: Kawshik A M**	
	Abstract AgroWaste: Automated Recycling Solutions for Agri-Waste is intelligent agri waste management machine learning system. Farmers can upload the details of the waste type, category, quantity, condition of the waste, season, region and get the buyer recommendation which connect the buyer. Also, the farmer can get the buyer location and information about the buyers. The farmer can get the waste solution for some product the is available in the local market. Additionally they can get information about the business ideas and the total amount needed for the business. The system help the users earn from their waste and increase their income. By connecting both producer and consumer the system will help them to find the best buyer around their nearest location. Keywords: Agriculture Waste, Waste solution, Recycling prediction, Machine Learning, Random Forest, Buyer Recommendation		
13	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	Dynamic ML-Driven Architecture for Intelligent Network Threat Detection	**Students Name: Kiran K**	
	Abstract Dynamic ML-Driven Architecture for Intelligent Network Threat Detection,This project presents a comprehensive to enhance network security by identifying abnormal traffic patterns. It features an intuitive web interface that includes a landing page, a detection form for inputting network parameters, real-time visualization of network activity, detailed summaries of predictions, and a live monitoring page for ongoing traffic analysis. The system employs robust classification algorithms such as Random Forest and XGBoost to accurately detect anomalies in network traffic. Additionally, it allows users to download detailed reports and receive results via email, offering a practical, user-friendly, and efficient solution for detecting and managing network anomalies in real time. The model was trained and evaluated on benchmark datasets to ensure high accuracy and reliability. Emphasis was placed on minimizing false positives to		

	reduce alert fatigue for network administrators. This project demonstrates how ML-powered security tools can be effectively integrated into real-world infrastructure for proactive threat detection. Keywords: Network Anomaly Detection, Machine Learning, XGBoost, Cybersecurity Real-Time Monitoring, Data Visualization, Email Reporting, Web Interface.		
14	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	Skin Cancer Detection Using Image processing	**Students Name: Krithi N**	
	Abstract The goal of this project is developing a system of diagnosis of skin cancer based on image processing and deep learning methods.The technique examines photographs of skin lesions and divides them into three categories: melanoma (cancerous), benign (non-cancerous), and skin wound (not cancerous). A Convolutional Neural Network (CNN) is used to accurately recognize patterns in images. The dataset is prepared in multiple processes, including image resizing, pixel value normalization, and data augmentation to improve precision and minimize errors. Label encoding is utilized to translate class labels into numerical form, and the data is separated into training and validation sets for proper model evaluation.Tools such as ImageDataGenerator assist in effectively processing photos and providing variations to strengthen the model. The trained model can generate quick and accurate predictions made In accordance with input image. This technique can help dermatologists and other medical practitioners. It also aids in early detection of skin cancer, particularly The intervention can help more people in remote locations with less access to healthcare this will improve the chances of delivering in time and saving lives. Keywords: Skin Cancer,Melanoma,Benign,Skin Wound,Noncancerous,Early detection, Image Processing,CNN.		
15	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	SMARTCROP-COFFEE: A PREDICTIVE AGRICULTURE FRAMEWORK	**Students Name: Kruthika K J**	
	Abstract With the help of sophisticated data analysis and machine learning, a smart web-based system is designed to assist coffee farming in the aspects of sustainability and productivity. It integrates many modules into a user-friendly interface, such as coffee species forecasting, coffee leaf disease forecasting, weather forecasting, fertilizer recommendations and coffee crop production. The Coffee Leaf Disease module is based on Convolutional Neural Networks (CNNs) to detect early disease symptoms and provide the Weather Forecasting module with real-time feedback to guide farm strategy. Smart Fertilizer Recommendation engine, Natural Crops, is an engine that recommends optimal NPK values based on soil, age of plant and region using the same data but using a MultiOutput Random Forest Regressor. Regression models are also applied in the yield prediction and variety recommendation modules, to calculate the best suited variety to local climates, and to predict crop potential. The platform employs a friendly and intuitive interface to consolidate machine learning, environmental data, and user-provided data to provide farmers with accurate and valuable information about crop health, how to use resources optimally and how to think about sustainable farming. Keywords: Fertilizer recommendation, Weather forecasting, Disease detection, Yield prediction.		

16	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	Smart Safety Surveillance System for Real-Time PPE Compliance Monitoring	**Students Name: Latheesh K**	
	Abstract Safety at work is still a major concern, particularly in high-risk settings like industrial and construction sites. Despite current safety procedures, many accidents happen as a result of employees not wearing the appropriate Personal Protective Equipment (PPE). Monitoring by manually is frequently challenging, slow, and prone to human mistake. IoT and computer vision technologies have been used to create a real-time PPE monitoring system in order to solve this problem. To determine PPE compliance, the system records video using an ESP32 CAM and analyzes it using a YOLO-based object detection algorithm. The system notifies the supervisor via automated email and sounds a buzzer if a violation is found. This dual-alert method ensures instant awareness and response. The system supports real-time monitoring, reduces response time, and helps prevent accidents by ensuring safety rules are followed. It provides a practical and affordable safety solution for dynamic workplaces. Keywords: Workplace Safety, Personal Protective Equipment, ESP32-CAM, YOLO, Real Time Monitoring, Object Detection, Alert System.		
17	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	PhishNet: Phishing Website Detection	**Students Name: Likhitha**	
	Abstract PhishNet is a work that learned computers to find sites that try tricks to steal money and stop people from using the web to harm themselves. It did this by looking at the links to the sites, getting details of them by itself, then putting them in either safe or try to steal money group by using learned models. To do that right, the team put effort into fixing the facts, making many ways to get the features, and trying many machines to make it faster and better. And many times, we made an easy to use window for smooth use, fast alerts, and an easy to see warning based on how bad the site was. Some big troubles were the many types of links, how to cut down on the sites that falsely said they were unsafe, and how to change nei with changing ways people try to steal money on sites while not losing the confidence users have. We fixed those problems with many times of testing and changing. By showing instant finding of the sites and how they reacted, System show just how strong a hand of the fast just in the world of online money stealing can give in not only utilizing the internet safer but also in giving smart ways to find ways people try to steal money in digital space. Keywords: Real-Time Threat Response, Secure Web Navigation, System Architecture, URLClassification, AI-driven Detection, Cybersecurity.		
18	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	Deep Learning Approach for Predicting Stress and Non-Stress States	**Students Name: Lohith Kumar**	
	Abstract This research offers a thorough deep learning method for using facial image analysis to identify people's stress levels. Built using the Flask web framework, the system seamlessly integrates a pre-trained deep learning model designed to analyze facial features and classify emotional states related to stress. To provide the best possible input quality for the model, the program		

	first preprocesses the user-uploaded facial image by scaling, normalizing, and converting it to grayscale. After that, the deep learning model analyzes the picture to ascertain whether the person is stressed. Following the forecast, the system not only shows the outcome but also provides personalized stress-reduction advice, including breathing techniques, guided meditation, and lifestyle modifications. With its clear and simple user interface, real-time prediction feedback, and a strong history tracking system that lets users track their stress levels over time, the application places a strong emphasis on usability. Additionally, the application prioritizes scalability and security, making it suitable for integration in diverse environments such as mental health monitoring apps, employee wellness portals, or telemedicine platforms. By providing non-invasive, fast, and accessible stress detection, this tool contributes to early intervention and continuous mental health support. Its implementation promotes improved mental health outcomes through technology driven solutions and creates new avenues for research, clinical application, and individual wellness. Keywords: Deep Learning, Real-time Detection, Open CV, Image Processing, CNN.		
19	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	Weed percentage detection using machine learning	**Students Name: Neeksha**	
	Abstract In the modernized form of agriculture, it is significant to realize how many cats are present in the field to safeguard the crops and to minimize the amount of chemicals. This project constructs a software that is able to scan a field image and determine the patches where weeds are present. It also determines what proportion of field is covered with the weeds. The system accomplishes this by relying on deep learning, which involves the utilisation of a Convolutional Neural Network (CNN). This model can be particularly applied to analysis of pictures and distinguish between crops and weedy areas. The field image is fractured into smaller units, known as patches thereby enabling a closer check over each area. The trained model is used to travel through each of the patches using its state to determine weedless or weed present. By running all the patches through the analysis process, the system will determine how many contain weeds and end up with the overall percentages of weeds. To train the model, we had a series of images that were known as either being a weed or not a weed and we employed a technique known as dropout so the model did not make mistakes and as it trained. A farmer and agricultural specialists can easily upload pictures of the field and get an approximate percentage of the field covered by weeds. Keywords: Convolutional Neural Network (CNN), Precision Agriculture, Weed Detection, Image Classification, Deep Learning		
20	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	Hydroponics for small scale farming	**Students Name: Nisha M R**	
	Abstract Hydroponics aims to simplify traditional agriculture approach by sensor integration to continously monitor the key environmental parameters that affects the plant growth health. This project presents an IoT-based hydroponics monitoring and control system designed to automate and remotely manage critical environmental parameters such as temperature, humidity, pH, electrical conductivity (EC), nutrient levels, water level, light intensity, and oxygen concentration. The system integrates sensors with an ESP32 microcontroller to collect real-time data, which is transmitted to a back end server for analysis and visualization through an		

	interactive web dashboard. Users can monitor plant health, receive alerts for anomalies, and remotely control actuators like lights and water pumps. The implementation demonstrates improved precision in maintaining optimal growth conditions, reduced manual intervention, and enhanced productivity. This project highlights the potential of combining IoT technology with hydroponic systems to support sustainable, efficient, and scalable agriculture. Keywords: Hydroponics, Vertical farming, Iot, Sensors, Automation, SMS Trigger		
21	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	Vehicle lane detection	**Students Name: Pavan U P**	
	Abstract The Autonomous vehicles rely heavily on accurate lane detection systems to ensure safe and reliable navigation. This research presents the creation and execution of a deep learning based lane detection framework capable of identifying road lane boundaries in real-time under varying environmental and road conditions. The proposed system leverages Ultra Fast Lane Detection (UFLD), a lightweight and efficient neural network architecture 16 that is tailored for lane detection tasks, to process video input and dynamically track lane lines. Pre processing techniques such as color space transformation, perspective warping, and edge detection using OpenCV were employed to enhance the visibility of lanes be fore feeding frames into the deep learning model. The system was trained and evaluated on a curated video data set simulating real-world driving scenarios. Experimental results demonstrate the robustness of the model in handling occlusions, shadows, and curvature variations, maintaining consistent lane estimation. This research contributes towards the advancement of intelligent transportation systems by proposing an accurate, real-time, and computationally efficient approach to lane detection, suitable for deployment in embedded automotive platforms. Keywords: Modular Neural Network (MNN) , General Regression Neural Network (GRNN) , Convolutional Neural Network (CNN).		
22	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	Parking Lot residency Discovery Using Deep Learning	**Students Name: Pruthvik M A**	
	Abstract In order to maximize civic parking operation, this design creates a sophisticated and de pendable automated parking lot residency discovery system. For dependable point birth, it makes use of a slice edge Faster R- CNN deep learning model that has formerly beentrained on the COCO data set. 12,000 different prints from the PKLot data set were used for train ing; they included a range of lighting conditions, camera angles, and top down perspectives. conception and adaptability to a variety of shoes were greatly bettered by expansive data addition using the Albumentations library reels, cropping, color changes, blur, and arrest ment). To guarantee optimum conception, the stylish model was saved grounded on con firmation loss after being optimized over 50 ages using the AdamW optimizer with a tuned literacy rate of 0.0005. The system works by recycling individual picture inputs, lading the Faster R- CNN model that has formerly been trained, doing necessary preprocessing on the image, and using conclusion to rightly identify and classify parking spaces. The algorithm precisely counts engaged and empty places and pollutants findings grounded on confidence situations. Incipiently, it provides instant visual and quantitative perceptivity by imaging the reused image with color- enciphered bounding boxes(e.g., red for enthralled, green for vacant) and prominently displaying the total number of enthralled and empty spaces. For demonstrations, original CPU conclusion is		

	possible, but GPU accelerated backend waiters are necessary for high- outturn deployment. Keywords: Modular Neural Network, General Regression Neural Network, Convolutional Neural Network,Pattern Recognition,Feature Extraction.		
23	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	NewsSift: Sifting truth from lies using intelligent algorithms	**Students Name: Ramya K**	
	Abstract The fake news has grown significantly recently, mostly as a result of websites and social media. Misinformation can be frightening, perplexing, and even harmful to society. This project seeks to develop a machine learning system to automatically detect a genuine or a fraudulent news article. The system involves natural language processing (NLP) in readying and filtering of news text. It then turns the text into numbers using a method called TF-IDF (Term Frequency-Inverse Document Frequency). Three machine learning models were put to the test: logistic regression, random forest, and naive Bayes. Of these, the Random Forest model produced the best results. The completed system is shown in a web application built with Flask. Entering a news article allows users to quickly determine whether it is “real” or “fake”. If users think the result is inaccurate, they can also use the feedback feature to leave a comment. This project aims to stop the spread of misleading information while promoting the exchange of reliable and accurate information. Keywords: Fake News, Machine Learning, TF-IDF (Term Frequency-Inverse Document Frequency), Naive Bayes, Random Forest, Logistic Regression.		
24	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Auction System Enhanced with Machine Learning Technology	**Students Name: Ranjeeth**	
	Abstract High level Machine Learning (ML) procedures are revamped into an online auction system. Ordinary auction formats tend to possess inherent constraints to the most fluid market environments in terms of price discovery, robust anti-fraud filtering and perpetual player participation. The project that is going to be presented describes the machine learning-based paradigm that will be employed to formally treat these critical issues. By conducting a comprehensive ambient analysis of historical bidding trends and data, item-level dynamics, and user profiles, the proposed system would intelligently adapt to auction parameters, accurately detect aberrational bidding behavior that are indicative of fraudulent bidding activity, recommend unit-specific information to improve the user experience. The primary objective is to make an overall more intelligent and competitive auction process in an attempt to maximize seller profits, streamline an accurate sale transaction, and provide a truly outstanding user experience, thereby helping to build a highly competitive and fair market. Keywords: User Engagement, Adaptive Systems, Flask, E-commerce Auctions, Fraud Detection.		
25	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Resume categorization using machine learning	**Students Name: Sanath P V**	
	Abstract Resumes are gathered by companies in the contemporary recruitment environment; thus, manual sorting and screening can only be described as slow and inefficient. This project will		

	endeavor to develop a smart system that automatically sorts the resumes into set job positions using the values of machine learning. Using resumes with unstructured text, the system in the trial succeeds in predicting such categories as Data Scientist, DevOps Engineer, HR, and so on. The solution is based on supervised machine learning, in which a tremendous amount of labeled resumes is deployed to a classifier. The TF-IDF technique is used as the preprocessing stage of the resume text, which is converted into a numerical vector. Patterns are then learnt with the help of a Random Forest classifier and accurate predictions made. In order to be easier to use, the model is embedded into a web application developed using Flask as a backend and HTML/CSS as a frontend. This system simplifies the screening of resumes, minimises human prejudices and enhances the hiring processes efficiency. Keywords: Resume Categorization, Machine Learning, TF-IDF, Text Classification, Random Forest, Automated Recruitment.		
26	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Real Time Driver Drowsiness Detection Using CNN and Computer Vision	**Students Name: Sarthak B**	
	Abstract Driver drowsiness is a major contributor to crashes which present serious threats to both passengers and overall traffic safety. This project presents an AI powered Drowsiness Detection System that continuously monitors a driver's alertness using a real-time video feed. The system uses a CNN to analyze facial features and EAR, accurately detecting indications of exhaustion such as prolonged eye closure, frequent blinking, and yawning. A web based interface built with HTML and JavaScript provides live video display, detection statistics, and real-time visual alerts when drowsiness is detected. The system also logs events and generates analytical reports for further review. Designed to be lightweight and computationally efficient, the framework operates in real time on standard hardware, enabling proactive alerts to prevent accidents caused by drowsy driving and enhancing overall road safety. Keywords: Drowsiness Detection, Real-time Video, Facial Recognition, Alert System, Computer Vision		
27	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	CocoaScan Systems: Automated Cocoa Butter Profiling for Cosmetic Industry Use	**Students Name: Sharanya B**	
	Abstract The recent developments in the cosmetics industry are causing shifts in regards to the skin care market where more clientele are showing acceptance towards safer products based on natural ingredients. The chemical additives in most cosmetic Products are connected to a number of drawbacks that may end up irritating the skin and causing allergic reactions. One would say a good example is cocoa butter, the creamy fat found in cocoa beans, that over the years has been increasingly becoming relevant in the cosmetics and skin-care sector. Since the established laboratory methods to isolate cocoa butter require much time, high cost and labor-intensive tasks, a predictive Machine Learning (ML) model is formulated to classify cocoa butter quality based on its chemical and physical characteristics. This model can classify the cocoa butter samples of various quality levels by training an algorithm, like decision tree, support vector machine (SVM), and Extreme Gradient Boosting (XGBoost), and thus can create a scalable and cost-effective guideline of choice manufacturers can adhere to. Keywords: Cocoa Butter Quality, Refining Process, Physicochemical Analysis, Cosmetic		

	Applications, Spectroscopic Data, Natural Ingredients.		
28	**Project title**	**Guide:Prof. Anil Kumar K**	**AY : 2024-25**
	Reputo : Instant AI-Driven Business Insights at Your Fingertips	**Students Name: Shivani B T**	
	Abstract Startups frequently encounter difficulties when attempting to interpret their sales figures and spot genuine opportunities for advancement, primarily because advanced business intelligence resources are often out of reach for small teams. The project at hand offers a tailored platform designed to address these challenges, reshaping raw sales entries into practical insights suited for the specific requirements of emerging businesses. The straightforward upload system lets business operators submit sales data in CSV format, after which the platform organizes and reviews the numbers closely presenting a clear monthly summary, in-depth analyses by product, and practical improvement suggestions. Essential tools such as flexible data-checking processes, thoughtful selection of key commercial details, and comparative tracking features make up the core structure of the platform. Reliable analytics are achieved through a combination of proven statistical approaches, including methods for recognizing sales trends across various months and identifying shifts in consumer demand over time. Beyond the technical aspects, the platform includes an intelligent chatbot, enabling users to interact and receive immediate responses to their questions about sales performance or strategic recommendations. By placing meaningful business analysis within reach and ensuring the tools are intuitive, this solution enables new companies and entrepreneurs to make more confident, informed decisions, helping them navigate the risks that come with limited market experience and resources. Keywords: Business Intelligence, Machine Learning, Startup Growth, Trend Analysis, Conversational AI, Data-Driven Decision Making.		
29	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	PharmaReuse : Revolutionizing Medicine Through Drug Repurposing	**Students Name: Shraddha B D**	
	Abstract The development of new drugs can be very long and consumes substantial sums of money as most of them are not effective. The repurposing of drugs that is the activity of iden- tifying new applications of existing drugs can be less costly and easier to achieve. The initiative is termed Revolutionizing Medicine through Drug Repurposing and aims at de- ploying machine-learning to predict whether a drug will be approved or whether it has already been approved and then utilize chemical and biological data about a drug to predict approval status. The model takes into consideration such crucial properties as the name of a specific drug, its type, its mechanism of action, protein it binds to, undesirable effects. The most prominent aspect of this paper is to determine the most effective dosage toxicity, which should be either in the high, the medium or the low dosage category and hence makes it more likely that the drug will pass the approval threshold. Keywords: Drug repurposing, ML, Approval Prediction, Toxicity Scores, Drug Informa- tion, Target Protein.		
30	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	A Detection Framework for Safeguarding	**Students Name: Sinchana L**	

	Users from Fraudulent Applications		
	Abstract Mobile application usage has rapidly grown and has come hand in hand with the increase of the development of malicious software. Often created to look like authentic apps, these will feature a high level of risk exposure to consumers that can include collecting credentials, unauthorized data usage, financial frauds, and device manipulation. The traditional, reactive methods of identifying such threats that, in most cases, are based on manual reviews are ineffective in a rapidly accelerating app ecosystem. The current project adds a proactive measure, based on machine learning, which detects fraudulent apps with the help of analysis of their essential metadata. Users provide information including the name of the app, category, rating, reviews count, the number of times the app is installed, the last app update date, the size of the app and also whether it is a paid or a free app. The system subsequently forecasts the likelihood of an application becoming either genuine or a fraud during pre-installation. Once downloaded, the platform invites users to report feedback and complaints which are posted publicly and provide a community-based safety net. Users in this dual-phase system enjoy better informed decision-making in the pre- and post-installation decision process thereby enhancing a more secure mobile ecosystem and minimizing exposure to cyber threats. Keywords: Fraud App Detection, Machine Learning, Mobile Application Security, App Metadata Analysis, Real-Time Prediction		
31	**Project title**	**Guide:Prof. Ramesha K**	**AY : 2024-25**
	Seed Classification In Rice Using Machine Learning	**Students Name: Thripthi**	
	Abstract In farming, being able to tell assortment of rice seeds apart is important for choosing the right ones, avoiding mix-ups, and getting better harvests. Traditionally, this is done by hand, which can take a ample time and may not always be accurate. Because of this, there's a need for a quicker and more reliable way to sort and grade rice seeds. This project presents a simple system that looks at images of rice seeds to find out their type and quality. First, clear photos are taken of different seed varieties. These images are cleaned, resized, and adjusted to make them easier for the system to analyze. The system checks the seed's shape, color, and surface to decide what type it is and how good its quality is like whether it's good, average, or poor. It compares these features with known examples to make its decisions. At the end, it tells the seed variety and quality. With more use, it becomes more accurate. This helps save time, reduces the need for manual checking, and gives farmers and seed sellers quick and useful results just from a photo. Keywords: Rice Seed Classification, Machine Learning, Image Processing, Convolutional Neural Network (CNN), Seed Grading		
32	**Project title**	**Guide:Dr. Jothimani K**	**AY : 2024-25**
	Microplastic contamination in soil: Detection and implications for soil health	**Students Name: Vandya M**	
	Abstract The presence of microplastics in agricultural soils is emerging as a cause of concern.. The particles lessen the soil fertility, interfere with microbial activities and eventually, decrease the crop yields. Contamination of plastic in marine ecosystems has received extensive studies but		

	soils were given inadequate attention, despite their direct linked to food security. To fill in the gap, a machine learning model was designed that could predict and control soil contamination based on laboratory data including soil type, pH, the amount of organic matter, nutrient levels, and plastic properties. Different regression models were tried and the highest accuracy of 98% was achieved using XGBoost. The model not only forecasts contamination but also grades it on whether it is low, moderate or high, names possible plastic sources, proposes mitigation measures, and recommends appropriate crops in line with the various soil conditions. The system in this manner promotes early warning of pollution, aids in sustainable agricultural and assists in protection of long-term soil productivity and health. Keywords: Microplastic pollution, Agricultural soils, Machine learning, XGBoost, Soil contamination, Sustainable agriculture		
33	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	Intelligent Price Forecasting of Cryptocurrencies using deep learning	**Students Name: VARUN M C**	
	Abstract Cryptocurrency markets are highly dynamic and volatile, predicting prices with accuracy both challenging and valuable. It mainly focuses on building a deep learning-based system to forecast future prices of popular cryptocurrencies such as Bitcoin (BTC), Ethereum (ETH), and others. Instead of using static or pre-downloaded datasets, historical price data is dynamically collected from the Yahoo Finance API using the yfinance library. This includes daily values like OHLC price, and trading volume. To improve forecasting accuracy, technical metrics, including moving averages and price changes are added. The core algorithm used is an LSTM (Long Short-Term Memory) neural network, which is well-suited for time-series prediction due to its ability to learn patterns over time. To forecast future prices, the methodology consists of feature engineering, data preprocessing, MinMaxScaler normalization, and LSTM model training. Keywords: LSTM, Yahoo Finance, Time-Series Forecasting, Technical Indicators, Real-Time Data, MinMaxScaler.		
34	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	Spam Email Detection using Machine learning	**Students Name: Vibhashree.M.S**	
	Abstract CleanMail is a detection of spam emails using machine learning with an intuitive web based interface. The algorithm known as Random Forest was selected for its excellent accuracy and resilience in classification tasks, forms the basis of the system. The applica tion allows new users to register and securely sign in, following which they are directed to a personalized dashboard. The dashboard displays separate sections for inbox, sent mes sages, and detected spam messages, enhancing user navigation and message management. The email composition feature enables users to send messages to other registered accounts, and sent emails are automatically stored in the recipient's inbox. The system makes use of Natural Language Processing (NLP) techniques such as tokenization, stopword removal, and lemmatization for feature extraction before classification. Experimental results demon strate that the Random Forest based model effectively detects spam with high precision. This project provides an integrated platform combining secure email communication with intelligent spam filtering for improved user experience. Keywords: SpamEmailDetection,Natural LanguageProcessing (NLP), Tokenization, Stopword		

	Removal, Secure communication,User Dashboard.		
35	**Project title**	**Guide:Prof. Neema H**	**AY : 2024-25**
	Data-driven crime forecasting and analysis	**Students Name: Vikhya G C**	
	Abstract Predicting crimes is essential to maintaining public safety and assisting law enforcement in making preventive decisions. Machine Learning techniques have grown more and more useful assessments of trends and predicting potential criminal activity due to the rapid growth of data on crime. Based on historical data and contextual elements like location, time, and events, this research aims to forecast the kind of crime which is probably most likely to happen in a certain place. The system makes predictions on new inputs by using supervised learning models to identify trends in labelled crime datasets. The suggested method helps authorities allocate resources efficiently and increase public awareness of potential hazards by mapping locations and categorising prospective crime types. Prepro cessing of data ,feature model training ,extraction, and evaluation are all included in the implementation. The correctness of the experimental results is encouraging, underscoring the potential of data-driven solutions to lower crime and enhance urban safety. Keywords: Crime Prediction, Machine Learning, Supervised Learning, Crime Data Anal ysis, Feature Extraction, Urban Safety		
36	**Project title**	**Guide:Dr. Rajeshwari M**	**AY : 2024-25**
	Smart Nutrition Planner: An ML-Driven Dietary Recommendation Model	**Students Name: Yuktha IP**	
	Abstract The rise in popularity of health and nutrition has resulted in recent years in a rising demand of the recommendations on individual nutrition. The project is the development of a Nutri tion Diet Planner system where the machine learning approach and user-specific parameters are used to develop optimized meal plans that fit users needs. The system is focused on the enhancement of healthier eating by taking into consideration the age, gender, weight, pref erences and aims connected to health. At the center of the system is the Random Forest Classifier, which is a powerful machine learning model that can deal with complicated de cision boundaries and interactions between input features. The model was learned using a heterogeneous dataset consisting of nutrition intake patterns, health objectives, and food composition data. The mapping of the classification output to diet types and specific food names corresponding to the caloric and macronutrient needs was proposed. The effectiveness of the given system has been verified by its performance represented in the form of accuracy, precision, recall, and F1-score indicating that it can be rather pro ductive in terms of providing actionable recommendations. The planner is modular and versatile, so it can be extended with wearable support, internationalization, and by intro ducing experts to the interface, thus it can prove to be a useful tool in raising awareness of well-informed nutrition choices and healthier lifestyles. Keywords: Diet Recommendation System, Data-driven Nutrition Planning, Random For est Classifier, Precision nutrition, Personalized Meal planning, Personalized Dietary Rec ommendations.		