K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU- 560109

DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE

SEMESTER: VIII (2024-2025)

**Subject: Project work**

**Subject Code: 21ADP76**

| SL. NO. | Team no. | Project title | Project Description |
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| 1 | 1 | Diabetes Prediction using Machine Learning | Diabetes is a long-term metabolic disorder that involves high blood glucose levels, which can result in serious health complications if not diagnosed and treatedearly. Early prediction and diagnosis are important to avoid long-term complicationsand enhance the quality of life of patients. The purpose of this project is to create aprecise and effective predictive model for diabetes based on machine learning (ML) methods. |
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| 5 | 2 | SMARTHIRE AI | The increasing reliance on remote interviews has raised concerns about security, fairness, and accurate candidate assessment. Traditional systems often fail to detect impersonation, distractions, or rule violations, leading to biased or unreliable evaluations. This project addresses these challenges by developing an AI-driven interview analysis and proctoring system that leverages CNN, YOLOv3, and emotion recognition to ensure real-time monitoring, behavior analysis, and secure authentication, ultimately providing a reliable, unbiased, and comprehensive remote interview experience. |
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| 9 | 3 | Driving Pattern Analysis | Fuel consumption prediction is crucial for optimizing energy efficiency and reducing emissions in transportation. This project aims to analyze vehicle driving patterns using machine learning to improve safety, fuel efficiency and overall driving behviour. It ustilzes OBD sensors data such as speed, RPM, throttle position, gear status and acceleration to classify driving style. |
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| 12 | 4 | Anomaly Detection in Network using Machine Learning | With the ever-increasing dependence on computer networks in today's networked world, they are the computer networks in today's networked world, they are the computer networks in today's networked world, they are the most sought-after victims of cyber attacks. This project responds to the immediate requirement for better security solutions by proposing a smart, adaptive anomaly detection system for network traffic based on machine learning. Intrusion Detection Systems (IDS) relying on rules are becoming less and less effective against advanced and new threats. In order to overcome these constraints, our method employs a hybrid model |
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| 16 | 5 | AI Doctor - A Multi-Modal Medical Diagnostic System | AI Doctor is a unified, multi-modal diagnostic assistant designed to ingest and interpret clinical text, voice, and imaging data within a single, explainable pipeline.This work demonstrates a scalable framework for transparent, real-time AI diagnostics across diverse healthcare settings. |
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| 20 | 6 | Lstm base sentiment analysis for movie reviews | With the rapid growth of online platforms, movie reviews have become a rich source of public sentiment and opinion. Sentiment analysis, an essential task in Natural Language Processing (NLP), involves the automated identification of opinions expressed in text, typically as positive or negative. This project focuses on developing a sentiment analysis system using Long Short-Term Memory (LSTM) networks a type of Recurrent Neural Network (RNN) designed to capture long[1]term dependencies in sequential data. eature engineering and struggle with contextual understanding, LSTMs can effectively model the temporal structure and semantic flow of language, making them well-suited for sentiment |
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| 24 | 7 | Face anti-spoofing : Tackling Unseen Presentation Attacks | An antispoofing method based on face recognition that prevents and detects presentation attacks with a novel anti-attack hybrid architecture of ResNet spatial feature extraction and CNN-LSTM temporal analysis of dynamics.<br>Improved performance is achieved with transfer learning by utilizing EfficientNetB0 to maintain a lightweight and precise feature extraction model. |
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| 28 | 8 | OsteoPredictor : A Knee Arthritis Predictor | With th increase demand in medical assistance for osteoprosis there is a need for early diagnoses and remedies for the same. The project aims at detecting osteoprosis in the early stages using Machine learning algorithm |
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| 31 | 9 | AI Powered Tool for the Visually Impaired | Visually impaired individuals encounter significant challenges in navigating their environment accessing textual information and moving through unfamiliar spaces. This project presents a comprehensive AI-powered assistive tool designed to address these challenges by providing realtime audio feedback. |
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| 35 | 10 | Missing Person Identification System | The projects aims at detecting and identifying missing person using image processing and project also helps in notifying the whereabouts of the missing persons instantly through application. |
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| 39 | 11 | Traffic Prediction for Intelligent Transportation System | Traffic congestion in urban areas frequently delays emergency vehicles such as ambulances, fire trucks, and police cars, risking lives and public safety. Conventional traffic signals operate on fixed timers or basic sensors, failing to dynamically prioritize lanes with emergency responders or high traffic density. This inefficiency leads to longer response times for critical services, increased fuel waste, and heightened pollution from idling vehicles. Our project addresses this challenge by developing an intelligent traffic prediction system that analyzes lane-specific vehicle data to optimize signal timings, ensuring faster emergency passage and smoother traffic flow. |
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| 43 | 12 | Facial Recognition-Based Attendance System with Anti-Spoofing | The scope of the face attedance system with anti-spoofing includes developing a face recongnition- based attedance system that identifies individual from captured images or videos frames and logs attedance information accordingly. |
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| 47 | 13 | Sleep Disorder Identification and Recommendation System | Many individuals suffer from poor sleep quality due to irregular schedules, stress, and undiagnosed disorders, with limited access to real-time, data-driven insights. Most rely on subjective assessments, making it difficult to track and improve sleep habits or detect serious issues like insomnia, sleep apnea, or restless sleep. This project aims to develop an intelligent, real-time sleep monitoring system using sensor data and machine learning to analyze sleep patterns and provide actionable feedback, promoting healthier sleep and early detection of disorders. |
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| 51 | 14 | CyberBullying Detection. | The project aims to develop a machine learning model that detects bullying on Twitter by analyzing both textual content and images. It employs Natural Language Processing (NLP) to assess the sentiment and context of tweets, and Convolutional Neural Networks (CNN) to analyze images associated with tweets. The model utilizes the Twitter API to fetch real-time data, which is then processed to classify content as bullying or non-bullying. This dual approach enhances detection accuracy by addressing both text and image-based bullying. |
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| 55 | 15 | MindScan: AI for Alzheimer's Prediction. | MindScan is an AI-driven system for early prediction and staging of Alzheimer's disease using brain MRI scans and symptom assessments.It employs a fine-tuned MobileNetV2 model achieving 91% test accuracy across four Alzheimer's stages. The system includes additional features like symptom-based risk assessment, explainable AI highlighting affected brain regions, and automated report generation. Deployed via a Streamlit web interface, MindScan offers accessible, interpretable, and clinically relevant support for both users and healthcare providers. |
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| 58 | 16 | textInova: AI-Powered Academic Text Toolkit | Academic writing involves tasks like paraphrasing, summarization, and plagiarism detection, which can be repetitive and time-consuming when handled separately. Existing tools often lack customization, leading to fragmented workflows. Additionally, identifying AI-generated content has become crucial to maintain academic integrity. This project addresses these challenges by offering a unified platform that integrates these key functionalities. |
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