

CATALOGUE OF B.E. PROJECT
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DEPARTMENT OF INFORMATION TECHNOLOGY
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Group No.	1
Title :	LoopSync: A Scalable Workflow Automation Platform Using Event-Driven Architecture for seamless application integration
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	GOSWAMI KRISHNA SHATRUGHN HARIJAN ANILKUMAR LALJI GANGAWAR RUSHIKESH ADINATH
Abstract :	LoopSync is a scalable workflow automation platform designed to simplify application integration and automate repetitive business processes through event-driven architecture. The platform enables users to create workflows consisting of event-based triggers and predefined actions that facilitate seamless communication between multiple applications and services. It employs a microservices-based architecture in which events are efficiently managed through messaging systems such as Redis or Apache Kafka, while dedicated workers execute workflow actions asynchronously. The system is developed using Next.js/React.js for the user interface, Node.js for backend services, PostgreSQL with Prisma for secure and structured data management, and third-party APIs for external application integration. LoopSync supports real-time event processing, asynchronous task execution, workflow monitoring, scalability, and secure handling of application data. By reducing manual intervention and providing an extensible integration framework, the proposed platform aims to improve operational efficiency, reliability, and productivity. The architecture also allows additional applications, services, and workflow actions to be incorporated with minimal changes, making LoopSync suitable for diverse automation and enterprise integration requirements.
Group No.	2
Title :	RoadGuard: An AI-Based Real-Time Pothole Detection and Prioritization System for Intelligent Road Safety and Maintenance
Guide Name :	Mrs. Amruta Sankhe, Asst. Professor
Group member :	KUMARI AARTI MANGNU MAURYA NEHA SATYANARAYAN MAVANI TWISHA GHANSHYAMBHAI MISHRA RITIKA VIVEK

Abstract :	Road safety is a major concern, and potholes are one of the major causes of road accidents, traffic problems, and vehicle damage. Potholes are commonly formed due to heavy traffic, bad weather conditions, water accumulation, and poor road maintenance. Traditional pothole detection methods mainly depend on manual inspection and public complaints, which are time-consuming, costly, and often fail to provide real-time information. This project proposes an AI-Based Real-Time Pothole Detection and Prioritization System that uses artificial intelligence and image processing to automatically detect potholes from road images uploaded by users through a mobile application. A deep learning model identifies potholes and estimates their severity based on their size and condition. The system also captures the GPS location of each detected pothole and stores the information in a central database. Based on the pothole's severity and location, real-time alerts can be provided to nearby drivers to help them take necessary precautions. At the same time, road authorities can use the collected data to identify and prioritize dangerous potholes for repair. This reduces the need for manual inspection, saves time and resources, improves road maintenance planning, and helps prevent accidents. The proposed system is automatic, cost-effective, scalable, and provides useful real-time information for both drivers and authorities, contributing to safer roads and smarter road management.
Group No.	3
Title :	IntelliBiz: An Intelligent Business Analytics Platform For Decision Support
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	GUPTA JAYESH ARVIND, VERMA MAHIMA, KHAN TABASSUM FAZAL AHMAD, JAISWAR AMAR RAMJI
Abstract :	Businesses today collect a lot of data from sales, customers, products and daily operations, but this data is not always easy to understand or use for decision-making. Through the need identification process, we found that users often depend on spreadsheets, reports and manual analysis to understand business performance. This can take time and may require knowledge of data analysis tools. There is therefore a need for a simple platform that can organize business data, show important performance indicators and help users identify useful patterns without performing everything manually. IntelliBiz is proposed to address this need by providing a single platform for data uploading, preprocessing, business analytics, interactive visualization and intelligent insights. The platform is intended to help users understand their business data more easily and support faster, data-driven decisions. This need is also consistent with the reference project's identified gap between large volumes of business data and the technical effort required to convert it into meaningful insights.
Group No.	4
Title :	GeoFlood AI : An AI-Powered Urban Flood Risk Prediction and Mapping System Using Google Earth Engine
Guide Name :	Dr. Vikas Kaul, Associate Professor and HOD
Group member :	AMBALLA GIRISH GANGAMOHAN, DIKSANGI SOMANATH NEELAKANTH, JAIN DRASHTI AJIT, JAISWAL ADITYA YOGENDRA

Abstract :	Urban flooding is a serious and increasing problem caused by heavy rainfall, rapid urban development, poor drainage, and changes in land use. GeoFlood AI is an AI-based system developed to predict and map areas that are more likely to be affected by urban flooding. The system combines geographical information such as elevation, slope, land use, and drainage with rainfall and historical satellite data to understand the conditions that lead to flooding. Sentinel-1 satellite imagery is used to identify historical flood-affected areas, while Google Earth Engine helps collect and process the required geographical and satellite data. Machine Learning models such as Random Forest and XGBoost are then used to predict flood probability for different locations. The predicted results are presented as simple flood-risk maps, showing areas with different levels of risk. The system is evaluated using unseen flood events and areas to check its reliability and ability to work under different conditions. Overall, GeoFlood AI can provide useful information for urban planning, disaster management, infrastructure development, and better flood preparedness.
Group No.	5
Title :	Aviora: An Intelligent Context-Aware Personal Safety Platform for Proactive Threat Detection and Emergency Assistance
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	BAJPAI MUSKAN KAMLESH KUMAR, CHAUDHARY JAYESH DAYARAM, PARTH PATIL, DHARAVAT SIDDH UMESH
Abstract :	Aviora is an intelligent personal safety platform designed for everyone — travelers, workers, students, elderly people, and women — that uses passive threat detection (accelerometer for motion/fall analysis, microphone for distress sounds, and GPS for location awareness) combined with on-device machine learning to automatically identify emergencies without requiring a manual SOS button. Built in the simplest way so anyone can use it easily, Aviora adds specialized features for women (enhanced detection in high-risk areas, gender-aware threat patterns, women-responder options) and elderly individuals (fall detection, medical alert integration, caregiver notifications, simplified interface). The platform includes a community responder network of verified volunteers who receive real-time alerts and can assist within 500 meters, a graded escalation chain (self check-in → trusted contacts → community responders → emergency services), automatic audio/video evidence recording for investigations, and a web dashboard for emergency services and institutions to visualize safety trends and deploy resources intelligently — ultimately creating a unified intelligence layer that protects everyone while addressing the specific needs of vulnerable populations.
Group No.	6
Title :	Praamaan AI: A Multi-Agent RAG-Based Enterprise Knowledge Intelligence Platform for Trustworthy Evidence-Driven Decision Support
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	BANG SAKSHI SATYANARAYAN, DAPHALE AKANKSHA NARESH, GEHLOT ANISHA MADAN, MAURYA POOJA DINDAYAL

Abstract :	Pramaan AI is an enterprise-grade AI-powered knowledge intelligence platform that delivers accurate, transparent, and trustworthy responses from organizational documents such as contracts, compliance policies, audit reports, and regulatory guidelines. The system integrates Retrieval-Augmented Generation (RAG), Multi-Agent AI, Knowledge Graphs, and hallucination detection to ensure every response is evidence-based and supported by verifiable citations. It retrieves relevant information through semantic search, generates context-aware answers using Large Language Models (LLMs), verifies them against source documents, and assigns a confidence score to improve reliability. By combining intelligent retrieval, automated verification, and explainable AI, Pramaan AI enhances enterprise knowledge retrieval while ensuring transparency, traceability, and regulatory compliance across industries such as banking, legal, insurance, and cybersecurity.
Group No.	7
Title :	OpenRTC: Design and Implementation of Open-Source and Scalable Selective Forwarding Unit (SFU) For Real-Time WebRTC Communication
Guide Name :	Dr. Madhuri Gedam, Associate Professor
Group member :	GUPTA DHEERAJ SURESH, GUPTA NITIN KISHANLAL, GUPTA VAIBHAV ROOPESH, GURAV SHASHANK MADHUKAR
Abstract :	OpenRTC is a custom-built and extensible Selective Forwarding Unit (SFU) designed for efficient real-time WebRTC communication. The system implements the media forwarding engine, signaling protocol, and room, transport, producer, and consumer management using foundational WebRTC protocol primitives, including ICE, DTLS-SRTP, and RTP/RTCP. This architecture enables efficient multi-party media routing without server-side transcoding. OpenRTC further incorporates simulcast-based bandwidth adaptation driven by Transport-Wide Congestion Control (TWCC) to improve media delivery under varying network conditions. Beyond core SFU functionality, OpenRTC introduces three server-side capabilities: Rewind-Live, which provides in-call instant replay using a rolling media buffer; Universal Captions, which provides real-time speech captioning and translation; and Flowspace, which enables dynamic participant regrouping by modifying the SFU forwarding graph instead of creating isolated sub-rooms. The system is evaluated against established SFU platforms such as mediasoup, Janus, and LiveKit under identical network conditions using a reproducible benchmarking framework. Rather than claiming performance parity, OpenRTC focuses on providing a transparent, extensible SFU implementation supported by measurable and data-driven performance comparisons.
Group No.	8
Title :	HawkVision: A Football Offside Detection System
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	AMGE PRANAV HANMANT, ANSARI MOHAMMED MOIN, PAWAR ABDUL HANNAN, SINGH KARTIK

Abstract :	Offside decisions in football remain contentious and error-prone, while existing camera-based semi-automated offside technology (SAOT) requires costly multi-camera setups that limit accessibility for lower-tier leagues. To address these limitations, this paper proposes a Sensor-Based Offside Detection System. The framework utilizes Ultra-Wideband (UWB) positioning tags worn by all 22 outfield players paired with an Inertial Measurement Unit (IMU) embedded inside the match ball. By tracking real-time positions with centimeter-level precision, the system precisely synchronizes the ball-strike timestamp with player locations relative to the second-last defender. This provides an accurate, scalable, and cost-effective decision-support tool for football officiating across all competitive levels.
Group No.	9
Title :	AgriVision: AI-Based Crop Disease Detection and Personalized Treatment System
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	KHAN SOHAIL MOHD SAMOON, MALVIYA KARTIK KANARAM, KHAN ABDUL SAMAD TANVEER, CHAD HARISINGH
Abstract :	Agriculture plays an important role in the economy, but crop diseases and pest infestations can cause significant losses when they are detected late. Traditional diagnosis mainly depends on manual inspection and agricultural experts, who may not always be easily accessible in rural areas. AgriVision is an AI-powered computer vision system that allows farmers to capture an image of an affected leaf or plant using a smartphone. The system uses Deep Learning and Computer Vision to identify crop diseases and pests, assess their severity, and provide personalized treatment recommendations, including chemical and organic alternatives with suitable dosage. The system is designed as a Progressive Web Application (PWA) with offline detection support for low-connectivity areas. It also includes an NLP-based chatbot, multiple crop support, and a crop-health tracking dashboard. AgriVision aims to provide fast, accessible, and intelligent crop diagnosis, helping farmers detect problems early, reduce crop losses, minimize unnecessary pesticide usage, and make informed crop-management decisions
Group No.	10
Title :	AI Startup Incubator: An Intelligent Startup Development and Business Incubation Platform
Guide Name :	Mrs. Amruta Sankhe, Asst. Professor
Group member :	CHHAPPARGHARE HIMANSHU PANDURANG, DHOKTE SWAYAM SANTOSH, DUBEY ADITYA ANILKUMAR, JAISWAL ABHIJIT KRUPASHANKAR

Abstract :	The AI Startup Incubator: Intelligent Workspace Management Platform is an AI-powered centralized system that integrates tools like Slack, Notion, GitHub, and payment platforms. It analyzes business data, identifies important activities and issues, and provides intelligent insights, alerts, and recommendations. The platform helps startups reduce manual work, improve productivity, and make faster, data-driven decisions. Modern startups and businesses rely on multiple platforms such as Slack, Notion, GitHub, and payment systems to manage communication, documentation, development, and revenue. Managing information across these platforms can be time-consuming and makes it difficult for administrators and founders to get a complete view of business operations.
Group No.	11
Title :	NeuroSync:- AI powered Human Cognitive Analysis System
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	GUPTA AKSHAT RAJESH, GUPTA AMAR RABISH KUMAR, GUPTA VISHAL VINOD, JAISWAR SUMIT SANJAY
Abstract :	NeuroSync is an AI-powered cognitive and health wellness system designed to help users understand their mental, emotional, and overall wellness. The system analyses observable facial and behavioural patterns to provide insights into stress, fatigue, focus, and emotional state, along with selected medical-image analysis for preliminary health insights. It uses AI and Computer Vision to process the collected information and generate personalized recommendations and easy-to-understand reports. NeuroSync aims to provide an accessible and non-invasive way for users to monitor changes in their well-being, improve self-awareness, and take appropriate action at an early stage. The system is intended to support wellness awareness and does not replace professional medical diagnosis or consultation.
Group No.	12
Title :	AgentInsight AI: Multi-agent Autonomous Data Analysis platform
Guide Name :	Mrs. Natasha Naik, Asst. Professor
Group member :	BHATI MONIKA JAGDISHKUMAR, CHAWRASIYA UMESH RAJENDRA, JHA SAURABH DINESH, JAISWAL ARYAN RAJESH
Abstract :	AgentInsight AI: Multi-Agent Autonomous Data Analysis Platform is an intelligent data analytics platform designed to automate the end-to-end process of data analysis using a multi-agent AI architecture. The system employs specialized AI agents for tasks such as data preprocessing, exploratory data analysis, statistical analysis, visualization, anomaly detection, and insight generation. Users can upload structured datasets, after which the agents collaboratively examine the data, identify patterns and trends, detect inconsistencies and outliers, and generate meaningful analytical insights. A coordinator agent manages task allocation and communication among specialized agents, enabling autonomous and efficient analysis with minimal human intervention. The platform can also generate automated reports and recommendations in natural language, making complex analytical results easier to understand. AgentInsight AI aims to reduce the time and technical expertise required for data analysis while improving analytical efficiency, consistency, and decision-making across various application domains.

Group No.	13
Title :	MediMind: A Machine Learning-Based Multiple-Disease Health Analysis and Prediction Platform
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	KUWAR SUDHANSHU MOHAN, KUSHWAHA ARYAN GYANCHANDRA, MISHRA AMBIKESH RATNESH, KUMHAR ABHISHEK RAJENDRA PRASAD
Abstract :	MediMind is a Machine Learning-based multiple-disease health analysis platform designed to provide accessible and timely health predictions. The system integrates Machine Learning algorithms such as Logistic Regression, Decision Tree, and Naive Bayes to predict the risk of Heart Disease, Diabetes, Breast Cancer, and Lung Cancer. Developed using the MERN stack, the platform allows users to securely upload medical prescriptions or images, obtain instant analysis results, and track historical health records. It also provides customized downloadable PDF reports for patients, doctors, and nurses. Authentication and data encryption are incorporated to protect sensitive medical information. The system aims to support early disease detection by providing a secure, scalable, and user-friendly platform for data-driven healthcare insights.
Group No.	14
Title :	Smart Enterprise Intelligence Platform (SEIP): An AI-Powered Enterprise Management and Automation System(ITSA, Audit)
Guide Name :	Dr. Vikas Kaul, Associate Professor and HOD
Group member :	MISHRA HARDIK SHIVPRASAD, MAURYA DHANANJAY SUNIL, MISHRA KUSHAL DHARUVKUMAR, MISHRA RITIK SAROJKUMAR
Abstract :	Smart Enterprise Intelligence Platform (SEIP): An AI-Powered Enterprise Management and Automation System is an intelligent platform designed to streamline enterprise operations, management, compliance, and audit-related activities through Artificial Intelligence and automation. The system integrates organizational data and processes into a centralized platform, enabling intelligent monitoring, analysis, reporting, and decision-making. It can automate activities such as IT Service and Asset (ITSA) management, audit management, compliance tracking, document management, task monitoring, and performance analysis. AI-powered modules can analyze organizational data, identify anomalies, track pending actions, generate alerts, and provide actionable insights to management. The platform also supports automated report generation and dashboards for monitoring key performance indicators and audit observations. By reducing manual effort, improving data visibility, and enabling proactive decision-making, SEIP aims to enhance operational efficiency, accountability, compliance, and overall enterprise management.
Group No.	15
Title :	RPLGuard: A Machine Learning-Based Intrusion Detection System for DAO Attack Detection in RPL-Based IoT Networks
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	GUPTA RAJ, MISHRA MUSKAN BRIJESHKUMAR, MISHRA SUMEET VIRENDRA, TANMAY SANAP

Abstract :	The rapid growth of Internet of Things (IoT) applications has increased the need for secure and reliable communication among resource-constrained devices. RPL (Routing Protocol for Low-Power and Lossy Networks) is widely used in IoT networks, but its routing mechanism is vulnerable to DAO attacks, in which malicious nodes manipulate routing information and disrupt network communication. Such attacks can cause packet loss, increased latency, excessive control overhead, higher energy consumption, and reduced network reliability. The proposed RPLGuard is a Machine Learning-based Intrusion Detection System designed to detect and classify DAO attacks in RPL-based IoT networks. The system will collect relevant network and routing parameters and analyze them using lightweight Machine Learning algorithms suitable for resource-constrained environments. Different ML algorithms will be trained and comparatively evaluated using metrics such as accuracy, precision, recall, F1-score, detection time, and computational overhead to identify the most efficient algorithm for DAO attack detection. The system will also analyze the impact of DAO attacks on Quality of Service (QoS), packet delivery ratio, latency, energy consumption, control overhead, and overall network reliability. RPLGuard aims to provide an efficient, lightweight, and scalable security solution that can detect DAO-based routing attacks while minimizing resource requirements, thereby improving the security, performance, and reliability of RPL-based IoT networks.
Group No.	16
Title :	Smart Career Assistant Using Artificial Intelligence and Natural Language Processing
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	GOUR KABIR SHAHID, KHAN MOHAMMED YASIR ARSHAD, KHARWAR VINAY, KHATRI FAIZAN JAVED
Abstract :	The Smart Career Assistant is an AI-powered career guidance system designed to help students and job seekers make informed decisions about their education, skills, and career paths. The system uses Artificial Intelligence (AI), Natural Language Processing (NLP), and Machine Learning to analyze users' academic backgrounds, skills, interests, resumes, and career preferences. It can recommend suitable career options, job roles, skill-development courses, and personalized learning paths based on individual profiles and current industry requirements. NLP enables the system to understand natural-language queries and provide interactive career guidance through a conversational interface. The system can also perform resume analysis, skill-gap identification, job-role matching, and personalized recommendations. By combining user profiling with intelligent recommendations, the proposed system aims to reduce uncertainty in career planning and provide accessible, data-driven, and personalized career assistance.
Group No.	17
Title :	Scam Shield AI: A Machine Learning and NLP-Based Job Scam Detection System for Identifying Fraudulent Job and Internship Postings
Guide Name :	Mrs. Sucheta Devkare, Asst. Professor
Group member :	POTNIS ROHAN VANDAN, UPADHYAY DEEPAK, PATHAK SUMIT CHANDRABALI, PANDEY SHIVANSH ABHISHEK

Abstract :	ScamShield AI is an AI-powered web application developed to detect and identify fake job and internship opportunities. The system analyzes job-related information such as job title, company details, description, requirements, benefits, and other relevant attributes to determine whether a job posting is genuine or potentially fraudulent. It uses machine learning techniques to identify patterns commonly associated with job scams and generates a scam probability and safety score for each analyzed posting. The system also provides risk levels such as Low, Medium, and High to make the results easy to understand. The application provides a user-friendly interface where users can enter job posting details or analyze a job URL. ScamShield AI evaluates the submitted information and presents the detection result along with relevant risk information. It also maintains scan history and allows users to report suspicious job opportunities, helping improve awareness about online employment fraud. The main objective of ScamShield AI is to provide an accessible, intelligent, and reliable solution that helps students, freshers, and job seekers identify potentially fraudulent job and internship offers before they become victims of scams.
Group No.	18
Title :	Prompt Injection : SecureLLM AI, A Multi-Layered Defense Framework for the Detection and Prevention of Prompt Injection Attacks in Large Language Models
Guide Name :	Mrs. Amruta Sankhe, Asst. Professor
Group member :	AGRAWAL SHREYANSH, PATIL PARIN, SAH PUSHPAK RAMDEV, SHARMA SHUBHAM MANOJ
Abstract :	The proposed project will deliver a functional, high-performance security middleware framework tailored for LLM-backed applications. Users and external application interfaces will interact with the LLM via this proxy layer, which will execute structured intercept, check, and sanitize logic on every inbound string. Malicious requests containing injection vulnerabilities will be safely neutralized either through structural transformation or direct refusal responses while standard user inputs pass through smoothly. The integration of local intent classification ensures that defensive evaluations happen entirely within the application boundary, preserving data privacy and eliminating external API call delays. Ultimately, the system provides a scalable blueprint for building hardened AI applications capable of handling untrusted input without compromising systemic constraints.
Group No.	19
Title :	PromptShield: A Guardrail-Based Detection and Monitoring System
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	PANDEY SHIVESH PRAVEEN KUMAR, PAL SUSHANT PHOOLCHAND, PANDEY HARSH MUKESH, PATHAK ISHAN MOD

Abstract :	PromptShield: A Guardrail-Based Detection and Monitoring System for Prompt Injection Attacks in LLM-Integrated Applications. Prompt injection is the top security risk for LLM-based applications, where attackers embed hidden instructions in user input or documents to override system behavior and leak sensitive data. PromptShield is a lightweight, pluggable middleware that detects such attacks using a combination of rule-based pattern matching and LLM-based semantic analysis, without requiring any model retraining. It integrates easily with existing LLM applications and includes a monitoring dashboard to track and analyze flagged attempts, aiming to make prompt injection defense practical and accessible.
Group No.	20
Title :	HealthForeSight: An Machine learning and Data Analytics-Based Healthcare System for Disease Trend Analysis and Predictive Healthcare Planning
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	MORE MAYURI SATISH, PACHCHIGAR NISHTHA DHAVALKUMAR, NAME DHRUTI BHAU, SHINDE KANISHKA SUNIL
Abstract :	Healthcare institutions generate massive amounts of patient data from hospitals, clinics, and diagnostic centers. However, traditional reporting systems mainly focus on historical analysis and do not provide predictive insights for future healthcare planning. This project presents an AI-Powered Healthcare Disease Trend Analysis Dashboard with Machine Learning-Based Prediction. The system uses Python to preprocess healthcare data, perform exploratory data analysis, and train Machine Learning models to predict future disease cases and patient admissions based on historical trends. The analyzed and predicted data is integrated into an interactive Power BI dashboard that visualizes disease trends, patient demographics, department performance, hospital admissions, bed occupancy, and treatment outcomes. The dashboard also displays prediction results generated by the Machine Learning model, enabling healthcare administrators to compare historical data with future forecasts. The proposed system helps hospitals optimize resource allocation, improve healthcare planning, reduce operational costs, and make data-driven decisions. It combines Business Intelligence and Artificial Intelligence to provide both descriptive and predictive analytics for smarter healthcare management.
Group No.	21
Title :	Vulnexus AI: A Hybrid AI and Graph Neural Network-Based Vulnerability Detection System for Accurate Context-Aware Software Security Analysis
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	PATEL HEET JIGNESH, NAIK RAHUL DEVIDAS, PAL RAJKUMAR RAMLAL, PRASAD YOGESH PAPPU

Abstract :	Software vulnerabilities are a major concern in modern software development, as weaknesses in source code can be exploited by attackers. Traditional static and dynamic analysis methods may require manual verification and can produce false positives or miss complex vulnerabilities. Recent AI and Graph Neural Network (GNN) techniques provide better automated analysis by learning vulnerability patterns and code relationships. Vulnexus AI proposes a hybrid approach that combines static analysis, dynamic analysis, Artificial Intelligence, and GNNs for context-aware vulnerability detection. By analyzing source-code relationships and vulnerability patterns, the system aims to improve detection accuracy, reduce false positives and missed vulnerabilities, and provide useful security insights to developers.
Group No.	22
Title :	DhanDrishti: An AI-Powered Business Intelligence Platform for Performance Analysis, Forecasting and Data-Driven Decision-Making
Guide Name :	Mrs. Natasha Naik, Asst. Professor
Group member :	SAROJ YASHKUMAR BACHCHELAL, SHARMA HARSH RAKESH, SHARMA RAMKUMAR PAWAN, SHARMA PRINCE JITENDRA
Abstract :	DhanDrishti is an AI-powered Business Intelligence platform designed to help organizations understand business performance and make informed, data-driven decisions. It collects and analyzes data from different business sources to identify trends, patterns, and key performance indicators. Using Artificial Intelligence, predictive analytics, and forecasting techniques, the platform provides insights into future sales, performance, and potential business risks. Interactive dashboards and visual reports help users easily monitor business activities and compare actual performance with expected outcomes. DhanDrishti aims to improve operational efficiency, support strategic planning, reduce decision-making risks, and enable sustainable business growth through intelligent data analysis.
Group No.	23
Title :	TrustVote AI : A Blockchain based Smart Election Platform for secure voting , candidate Intelligence and public Accountability.
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	KOTIAN SNEHA, MAURYA PRIYA, MORE APEKSHA, TIWARI SHIVENDRA
Abstract :	TrustVote AI is a blockchain-based smart election platform designed to provide secure, transparent, and reliable digital voting. The platform uses blockchain technology to ensure that voting records are tamper-resistant and securely maintained, while AI-based candidate intelligence helps voters access and analyze relevant candidate information. It also provides transparency and accountability through verifiable election records, analytics, and public insights. TrustVote AI aims to reduce election-related fraud, improve voter confidence, support informed decision-making, and promote a more transparent and accountable electoral process.
Group No.	24
Title :	GeoSSL: A Self-Supervised Feature Extraction and GIS Pipeline for Satellite Image Change Detection

Guide Name :	Dr. Madhuri Gedam, Associate Professor
Group member :	PRASAD VYANKTESH DARASINGH, RAI VEDANT RAKESH, RAI AJAY SATISHCHANDRA, PRAJAPATI NIRAJ AMARNATH
Abstract :	The proposed project, GeoSSL (Self-Supervised Feature Extraction and GIS Pipeline for Satellite Image Change Detection), aims to automatically identify and analyze geographical changes using satellite images captured at different time periods. Traditional change detection methods often require manual image comparison and large amounts of labelled data, making the process time-consuming and costly. GeoSSL uses self-supervised learning to learn meaningful features from largely unlabeled satellite imagery and automatically detect changes. The detected changes are then integrated into an interactive GIS-based web platform, where users can visualize and analyze changes based on location and time. The system can be used to identify changes such as urban expansion, vegetation loss, water-body changes, and land-use transformation. This approach reduces dependence on manual labelling and provides a scalable software-based solution for geographical monitoring and analysis.
Group No.	25
Title :	AI TeamOS: AI powered intelligent workspace for team collaboration and project management
Guide Name :	Mrs. Amruta Sankhe, Asst. Professor
Group member :	PANDEY DOLLY SUNITKUMAR, PANDEY SHIVANGEE SHAILESH, SAYYED SIMRAN ABDUL SATTAR, SHAIKH AYESHA MOHAMMED ISHAQUE
Abstract :	SynapseOS is an AI-powered intelligent workspace that brings team collaboration and project management into one centralized platform. It combines task management, documentation, meetings, communication, GitHub integration, and project tracking to reduce the need for multiple disconnected tools. Using LLMs and RAG, SynapseOS provides AI features such as meeting summarization, intelligent project search, task prioritization, sprint recommendations, and project risk analysis. Built with React.js, Spring Boot, PostgreSQL, and JWT, it aims to improve productivity, reduce manual effort, and support smarter decision-making for software teams and student project groups.
Group No.	26
Title :	"AI Future City Simulator: A Digital Twin Framework Integrating Artificial Intelligence and Urban Analytics for Predictive Evaluation of Smart City Planning Decisions"
Guide Name :	Mrs. Sonali Padalkar, Asst. Professor
Group member :	PAL HARSH RADHESHYAM, PRAJAPATI AMAN SHIVKUMAR, PATEL ANIKET RAMSAJIVAN, RAI SUMANT KUMAR SURENDRA

Abstract :	CityVerse AI is an AI-powered digital twin platform designed to support smart, sustainable, and data-driven urban planning. The proposed system creates a dynamic virtual representation of a city by integrating diverse datasets such as GIS maps, satellite imagery, weather conditions, traffic patterns, population demographics, and environmental parameters. Using Artificial Intelligence, machine learning, and urban analytics, CityVerse AI analyzes existing city conditions and predicts potential future challenges related to traffic congestion, population growth, environmental pollution, resource utilization, and infrastructure requirements. The platform enables urban planners and decision-makers to perform future simulations and What-If analysis by modifying planning parameters and observing their potential impact before implementing changes in the real city. AI-based recommendations can assist in evaluating alternative development strategies and identifying solutions that improve mobility, sustainability, resource efficiency, and quality of life. By combining digital twin technology, GIS-based visualization, predictive analytics, and AI-driven decision support, CityVerse AI aims to reduce planning risks, optimize urban resources, and promote resilient and sustainable city development.
Group No.	27
Title :	Intelligent Enterprise Knowledge Retrieval and Assistance System using RAG
Guide Name :	Mrs. Sonali Padalkar, Asst. Professor
Group member :	PAL ABHISHEK SUBHASH, PANDEY ANURAG ASHOK, PAL PRINSU RAJKUMAR, PATIL ROSHAN RAMCHANDRA
Abstract :	The Intelligent Enterprise Knowledge Retrieval and Assistance System is a RAG-based AI platform designed to help organizations efficiently access and utilize their internal knowledge. It retrieves relevant information from enterprise documents, policies, reports, and knowledge bases and generates accurate, context-aware responses using Large Language Models. The system reduces the time required to search through large volumes of information, minimizes irrelevant responses, and supports employees in making informed decisions. It aims to provide secure, reliable, and intelligent knowledge assistance while improving organizational productivity and knowledge accessibility.
Group No.	28
Title :	VulnSense AI: An LLM-Based Vulnerability Assessment System for Automated Security Analysis.
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	PAL PRIYANCY ASHOK, PANDEY KHUSHI JAYSHANKAR, SARVADE ANTARA RAJENDRA, SHAH DIXA MANISH
Abstract :	VulnSense AI is an LLM-based vulnerability assessment system designed to automate and simplify security analysis of software applications and systems. The platform analyzes source code, configurations, and security-related information to identify potential vulnerabilities and generate understandable risk assessments. Using Large Language Models and security analysis techniques, it can classify vulnerabilities, explain their potential impact, and provide recommendations for remediation. VulnSense AI aims to reduce manual security assessment efforts, improve vulnerability detection, and support developers and security teams in building more secure applications.

Group No.	29
Title :	VelocityDB : Design & Implementation of a Lightweight In-memory Database Engine with custom query language in C
Guide Name :	Mrs. Sucheta Devkare, Asst. Professor
Group member :	RATHOD MOHIT SHANKARRAO, ROUT RAHUL PRASHANT, SALUNKE PARTH DATTA, SHAH VANSI SHRENIK
Abstract :	VelocityDB is a lightweight in-memory database engine designed and implemented in C for fast and efficient data storage and retrieval. The system stores data directly in memory to provide high-speed query processing and supports a custom query language for performing operations such as data insertion, retrieval, updating, and deletion. The project focuses on understanding core database concepts, memory management, indexing, and query processing at a low level. VelocityDB aims to provide a simple, efficient, and customizable database solution while demonstrating the fundamental principles involved in building a database engine from scratch.
Group No.	30
Title :	FraudShield AI - Online Transaction Fraud Detection & Monitoring System
Guide Name :	Dr. Vikas Kaul, Associate Professor and HOD
Group member :	PANDEY SHLOK RAKESH KUMAR, NAZARETH SANAL SIMON, SHETTY SUJAY SHRINIVAS, RAI TUSHAR AKHILESH
Abstract :	FraudShield AI is an AI-powered online transaction fraud detection and monitoring system designed to identify and prevent suspicious financial activities in real time. The system analyzes transaction data and user behavior to detect unusual patterns and potential fraudulent activities using machine learning techniques. It can classify transactions based on their risk level and generate alerts for suspicious transactions, helping organizations respond quickly to potential threats. FraudShield AI aims to reduce financial losses, improve transaction security, and provide reliable monitoring for safer digital payments.
Group No.	31
Title :	MediCare Connect: AI Powered Intelligent Medicine Redistribution
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	SINGH SAVIT MANOJ, VISHWAKARMA AMIT SHOBHNATH, SHUKLA AAYUSH SUNIL, YADAV KRISH RAJESH
Abstract :	MediCare Connect is an AI-powered medicine redistribution platform designed to reduce medicine wastage and improve access to essential medicines. The system connects individuals, pharmacies, hospitals, and healthcare organizations to identify surplus or unused medicines and facilitate their redistribution to eligible recipients. AI can assist in matching medicine availability with demand, prioritizing requirements, and optimizing the redistribution process. The platform aims to minimize medicine wastage, improve resource utilization, and support affordable and timely access to medicines while promoting a more sustainable healthcare ecosystem.

Group No.	32
Title :	Crop Guard AI: A Robust and Explainable Deep Learning Frame Work for Automated Crop Disease Detection under Real World Field Condition
Guide Name :	Dr. Roopali Lolage, Professor
Group member :	EPILI SAMIR RAMAMURTY, KHAN SHOAIB SHAMSHER, MISHRA PRATIK DHARAMRAJ, YADAV RITHIK SATISH
Abstract :	Crop Guard AI is a robust and explainable deep learning framework for automated crop disease detection under real-world field conditions. The system uses crop leaf images to identify and classify diseases using transfer learning-based image classification. To improve performance outside controlled laboratory environments, it incorporates background segmentation and field-condition data augmentation to handle complex backgrounds, varying illumination, shadows, blur, and different leaf orientations. The framework also uses explainable AI techniques to highlight the leaf regions influencing each prediction and provides a confidence score with the detected disease. CropGuard AI aims to deliver a lightweight and accessible web-based solution that supports early disease identification, reduces potential crop loss, and bridges the gap between laboratory benchmark accuracy and practical agricultural usability.
Group No.	33
Title :	CrimeSight: An AI-Powered Geo-Spatial Intelligence System for Predictive Crime Hotspot Analysis and Public Safety
Guide Name :	Dr. Madhuri Gedam, Associate Professor
Group member :	SINGH PRIYANSHU MANISH, SUNDKAR UTKARSH ANANDA, TIWARI ANUJ MAHESH, VISHWAKARMA AARYA SANJAY
Abstract :	CrimeSight is a GIS and data-analytics based project that uses historical crime data to map, analyse and visualise crime hotspots, helping law enforcement and city planners allocate resources effectively. The system carries out data cleaning and transformation, spatial and temporal analysis, GIS-based crime mapping and hotspot identification, and presents the findings through an interactive dashboard. This project enhances the predictive-analysis stage of the existing system by introducing an AI/ML-based predictive model that learns from historical crime patterns to estimate potential future crime hotspot risk. The AI/ML component works alongside the existing GIS and visualization workflow, without altering the core data processing, mapping or dashboard modules.
Group No.	34
Title :	FactOS : Transparent and reliable LLM for Hallucination prevention in Intelligent Decision Support system
Guide Name :	Mrs. Natasha Naik, Asst. Professor
Group member :	TIWARI UNNATI SANJEEV, YADAV VINDESHWAR SHIVKUMAR, KHAN SIDDIQUE ASHFAQ, KHARATE PRITAM GANESH

Abstract :	FactOS is a transparent and reliable Large Language Model (LLM)-based Intelligent Decision Support System (IDSS) designed to detect and reduce hallucinations in AI-generated responses. LLMs can sometimes produce incorrect, unsupported, or contradictory information, which can reduce their reliability in decision-support applications. FactOS combines Retrieval-Augmented Generation (RAG), semantic retrieval, claim extraction, and NLI-based verification to improve response reliability. Documents are uploaded to the knowledge base, converted into embeddings, and stored in ChromaDB for semantic retrieval. The retrieved evidence is provided to the LLM to generate a grounded response. Individual claims are then verified using an NLI model and classified as Verified, Unsupported, or Contradicted. The system also provides confidence scores, evidence, citations, and a side-by-side comparison between a baseline LLM response and the verified response. This helps users understand the reliability of generated information and supports more transparent, explainable, and evidence-based decision-making.
Group No.	35
Title :	Swasth sathi : Smart Digital Health Record Management system
Guide Name :	Dr. Vikas Kaul, Associate Professor and HOD
Group member :	YADAV SAKSHI MEWALAL, YADAV SANJANA VIRENDRA, YADAV SHREYA RANG BAHADUR, YADAV NEETU TEJBAHADUR
Abstract :	Swasth Sathi is a smart digital health record management system designed to securely store, manage, and access patients' medical information in a centralized platform. The system maintains health records such as medical history, prescriptions, diagnostic reports, and treatment details, enabling quick and organized access to essential information. It helps patients and healthcare professionals manage records efficiently, reduce paperwork, and improve continuity of care. Swasth Sathi aims to provide a convenient, secure, and accessible solution for effective digital healthcare record management.
Group No.	36
Title :	VibeGuard:Detection & One-Click Remediation of Security misconfigurations in Application.
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	YADAV RAJ RAMSAVAD, PRAJAPATI PRINCE PARMOD, SHAIKH AMAAN JAHANGIR, DUBEY KRISHNA PRADEEP

Abstract :	VibeGuard is a security tool developed to identify and remediate security misconfigurations in AI-generated Firebase applications. The rapid growth of AI-assisted development enables faster application creation, but AI-generated applications may unintentionally introduce insecure configurations in Firebase services such as Firestore, Storage, Authentication, and Security Rules. VibeGuard performs automated security analysis to detect potential misconfigurations and vulnerabilities. It evaluates Firebase configurations, identifies security risks, provides understandable explanations, and offers one-click remediation to correct supported issues. This reduces the need for extensive manual security auditing and helps developers address vulnerabilities at an early stage. The proposed system aims to improve the security, reliability, and maintainability of AI-generated applications while making security assessment simpler and more accessible to developers.
Group No.	37
Title :	SAMPARK – Single Administrative Management Portal for Access, Resources and Knowledge
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	THAKUR KRISHNA NIRAJ, SINGH RAJ DIGVIJAY, SINGH SOMENDRA DURG VIJAY, PATIL MANSWI PRAMOD
Abstract :	SAMPARK establishes a strict Single Parent Domain Policy (dastaavej.gov.in/*) powered by a standardized web-component factory, structurally eliminating the visual spoofing vectors exploited by malicious actors. At the data layer, the framework leverages a multi-tenant PostgreSQL database running strict logical schema isolation. This design eradicates inter-departmental data duplication, significantly reducing the financial and ecological footprint of government data centers. To ensure absolute cryptographic provenance, the system integrates a permissioned private blockchain network (Hyperledger/EVM) that maps sequential administrative transaction milestones onto an unalterable ledger. Furthermore, the document rendering pipeline is fortified with zero-opacity vector trapping mechanisms—embedding hidden paths that instantly reveal structural forgery if a file is illicitly flattened or modified. Operationally, SAMPARK deploys a layout-aware Intelligent Document Processing (IDP) microservice utilizing OCR and NER to automate form ingestion, while simultaneously cross-referencing text strings to flag profile anomalies. Ultimately, SAMPARK delivers a tamper-proof, eco-sustainable digital public infrastructure designed to drastically optimize regional Ease of Living (EOL) and Ease of Doing Business (EODB).
Group No.	38
Title :	ApnaSolar: An Intelligent Solar Marketplace Platform
Guide Name :	Dr. Madhuri Gedam, Associate Professor
Group member :	TRIPATHI HARSHIT PRAMOD KUMAR, UPADHYAY NILESH RAJENDRA, UPADHYAY SHIVAM SATENDRA, YADAV ADITYA KAILASHNATH

Abstract :	ApnaSolar is an intelligent solar marketplace platform designed to simplify the process of adopting solar energy by providing users with personalized information about suitable solar solutions. The platform helps users estimate the required solar system capacity and approximate installation cost based on their electricity consumption, energy requirements, and location. It also enables users to explore and compare suitable Engineering, Procurement, and Construction (EPC) service providers, supporting informed decision-making during the solar installation process. By incorporating AI-assisted estimation and personalized recommendations, ApnaSolar reduces the complexity associated with solar system selection and provides users with accessible and relevant insights. The platform aims to connect potential solar customers with suitable service providers while promoting transparency, convenience, and sustainable energy adoption. Overall, ApnaSolar provides an integrated digital marketplace that assists users in evaluating solar solutions, understanding potential costs, and taking informed steps toward clean and renewable energy adoption.
Group No.	39
Title :	ResQMap: An AI-ML and GIS-Based Disaster Management System for Impact Assessment and Optimized Emergency Response
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	SINGH SANDEEP SANJAY, SINGH SUJAL ARVIND, YADAV SHASHANK BRIJESHWAR, YADAV KRISHNA RAJ RAM VRIJ
Abstract :	ResQMap is an AI-ML and GIS-based disaster management system designed to support rapid impact assessment and optimized emergency response. The system integrates geographical, environmental, population, and disaster-related data to identify affected areas and assess the severity of damage. AI and machine learning techniques help predict risk levels, prioritize critical locations, and support efficient allocation of emergency resources. GIS-based visualization enables responders to understand affected regions and identify suitable response routes and locations. ResQMap aims to improve emergency decision-making, reduce response time, optimize resource utilization, and enhance disaster preparedness and management.
Group No.	40
Title :	OmniMedia AI: Autonomous Multi-Modal Content Synthesis & Rendering Engine
Guide Name :	Mrs. Sonali Padalkar, Asst. Professor
Group member :	UPADHYAY CHIRAG AJAY, YADAV MRIDUL RAKESH, VISHWAKARMA DISHA TULASI, MISHRA KRISHNA

Abstract :	Traditional video editing workflows are manual, fragmented, and scale poorly, while monolithic video AIs suffer from high costs, visual flickering, and lack timeline control. This project presents OmniMedia AI, a decoupled software architecture that transforms unstructured text prompts into synchronized 1080p MP4 videos without manual editing tools. The pipeline uses Groq Llama-3 for structured semantic scene graph extraction, edge-tts for neural voice synthesis, and Pexels REST APIs for dynamic asset fetching. Programmatic timeline rendering is executed via MoviePy and FFmpeg to ensure frame-accurate audio-visual synchronization and subtitle generation. Operating with zero local GPU requirements, the system executes deterministically in under 30 seconds. It offers a scalable, zero-overhead automation engine designed for rapid educational and corporate content creation.
Group No.	41
Title :	IntelliQuiz: AI-Powered Adaptive Learning Platform for Competitive Exam Preparation
Guide Name :	Mrs. Sucheta Devkare, Asst. Professor
Group member :	TIWARI ROHAN DHARMENDRA, YADAV PRIYA ANGAD, YADAV SANDEEP PREMBAHADUR, YADAV AKASH AJEET
Abstract :	Competitive Exam Preparation IntelliQuiz is an AI-driven adaptive learning platform developed to enhance competitive examination preparation. The system generates dynamic and personalized quizzes using uploaded notes and PDF-based study materials. It leverages Artificial Intelligence, NLP, and Generative AI to deliver adaptive assessments and conceptual explanations. Student performance is systematically analyzed to identify knowledge gaps, strengths, and areas requiring improvement. Based on the analysis, the platform provides personalized learning recommendations and targeted revision plans. Interactive analytics dashboards enable students to track their progress and evaluate learning performance. Overall, IntelliQuiz provides a scalable, intelligent, and user-centric approach to personalized digital learning.
Group No.	42
Title :	Meridian : Business Intelligenc Dashboard for Tracking Company Performance at a glance
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	YADAV ANIKET RAJENDRA, YADAV ABHISHEK RADHESHYAM, YADAV SURAJ MADANLAL, YADAV AJAY SHALIKRAM

Abstract :	The proposed Meridian AI-powered Business Intelligence Platform is expected to provide organizations with a centralized and intelligent solution for monitoring company performance. The system will integrate data from multiple business sources and provide real-time monitoring of important KPIs such as revenue, expenses, operational efficiency, and customer metrics through an interactive dashboard. By using Artificial Intelligence and Machine Learning, Meridian will support anomaly detection, predictive forecasting, and trend analysis to identify potential risks and opportunities at an early stage. The platform will also provide personalized insights and actionable recommendations according to different user roles and business requirements. Automated reporting, data validation, alerts, and notifications will reduce manual work and improve data accuracy. Overall, Meridian is expected to support faster and smarter decision-making, improve resource allocation and operational efficiency, and help organizations achieve sustainable business growth.
Group No.	43
Title :	VisionAct AI: A Transformer-Based Vision-Language and Vision-Action Framework for Intelligent Multimodal Processing
Guide Name :	Dr. Madhuri Gedam, Associate Professor
Group member :	VAWHLE DHRUV RAJESH, TIWARI JAYESH PREMNATH, VISHWAKARMA HIMANSHU SUNIL, VISHWAKARMA MOHIT RAJESH
Abstract :	VisionAct AI is a Transformer-based vision-language and vision-action framework designed for intelligent multimodal processing. The system combines visual and textual information to understand images, videos, and natural language and generate meaningful responses or actions. Transformer-based models enable the platform to interpret complex relationships between different modalities and support tasks such as image understanding, visual question answering, object analysis, and action generation. VisionAct AI aims to provide an efficient and intelligent framework for developing advanced multimodal AI applications that can understand the environment and respond appropriately.
Group No.	44
Title :	MediAssist AI : A Machine Learning-Based Medical Diagnosis and Disease Prediction System for Early Healthcare Intervention
Guide Name :	Mrs. Sonali Padalkar, Asst. Professor
Group member :	YADAV SONU KUMAR SABHA SHANKAR, SINGH AARTI DHANANJAY, SINGH RIYA SARNATH, YADAV ABHISHEK ABHIMANYU
Abstract :	MediAssist AI is an intelligent healthcare assistance system designed to support early disease identification and provide accessible preliminary medical information. The system uses Machine Learning to analyze user-provided symptoms and predict possible diseases based on patterns learned from medical datasets. It integrates Retrieval-Augmented Generation (RAG) to retrieve relevant information from a curated medical knowledge base and Generative AI to provide understandable explanations and healthcare recommendations. The system also provides medical report analysis, an AI-powered chatbot, personalized recommendations, and patient history management. By combining predictive analytics with knowledge-grounded AI, MediAssist AI aims to support early healthcare intervention and informed decision-making, while professional medical consultation remains essential for final diagnosis and treatment.

Group No.	45
Title :	CLINORA AI: Intelligence Health Care System
Guide Name :	Dr. Aabha Patil, Asst. Professor
Group member :	UPADHYAY JATAN ARVIND, TIWARI SHIVANSH MANISH, VISHWAKARMA NIRAJ RAJESH, VISHWAKARMA SWAYAM SUNIL
Abstract :	Clinora is an AI-powered healthcare document intelligence system designed to digitize and analyze unstructured clinical records such as prescriptions, laboratory reports, clinical notes, and discharge summaries. The system uses OCR to extract text from scanned documents, while NLP and LLM techniques identify important information such as patient details, diagnoses, medications, and test results. The extracted information is converted into structured digital records for efficient storage and retrieval. RAG enables users to ask questions and receive context-based answers from authorized clinical documents. A Knowledge Graph represents relationships between patients, diagnoses, medications, investigations, and doctors. Clinora also provides intelligent search, summaries, analytics, and reports through a user-friendly dashboard. The system aims to reduce manual effort, improve accessibility of clinical information, and assist healthcare professionals in managing medical records efficiently.
Group No.	46
Title :	IntelliAnalyst: An AI/ML-Powered Business Intelligence and Automated Reporting Platform
Guide Name :	Mrs. Amruta Sankhe, Asst. Professor
Group member :	SINGH ADEESH AJIT, SONI PRANAY GIRISH, LAD PRATHAM DHANESHKUMAR, TRIPATHI PRIYANKA
Abstract :	IntelliAnalyst is an AI/ML-powered Business Intelligence and automated reporting platform designed to transform business data into meaningful insights and actionable information. The system analyzes data from multiple sources to identify trends, patterns, key performance indicators, and potential business risks. Using AI and machine learning techniques, it supports predictive analysis and automatically generates concise reports and visual dashboards. IntelliAnalyst aims to reduce manual reporting efforts, improve data-driven decision-making, and help organizations monitor performance and achieve better business outcomes.
Group No.	47
Title :	IRA AI : Intelligent Responsive Assistant: A Multimodal Artificial Intelligence Framework for Preventive Wellness Guidance through Behavioral Analysis
Guide Name :	Mrs. Sonali Padalkar, Asst. Professor
Group member :	SHARMA AAKANSHA SANDEEP, SHARMA NIKITA VISHNU, YADAV PRITHVI KAMLESH, YADAV SHIVAM SANTOSH

Abstract :	IRA AI (Intelligent Responsive Assistant) is a multimodal artificial intelligence framework designed to provide preventive wellness guidance through behavioral analysis. The proposed mobile and web application provides a simple, user-friendly, and stigma-free environment where individuals can record their daily thoughts, emotions, activities, and routines through convenient input methods. The system uses artificial intelligence to analyze behavioral patterns over time and identify changes or trends that may indicate the need for improved self-care and lifestyle practices. Instead of providing medical diagnoses or replacing professional healthcare, IRA AI offers gentle, personalized, and supportive suggestions related to healthy routines, emotional awareness, relaxation, and self-care. The platform encourages regular self-reflection and helps users understand their behavioral patterns through meaningful insights. With a focus on privacy, user comfort, and responsible AI usage, the proposed system aims to promote preventive wellness, emotional awareness, and healthier lifestyle habits. Overall, IRA AI provides an accessible digital platform that supports individuals in developing self-awareness and maintaining better day-to-day well-being.
Group No.	48
Title :	Psyconnect: A Multimodal Multi-Agent AI Platform for Student Wellness using Predictive Analytics
Guide Name :	Mrs. Rupali Pashte, Asst. Professore
Group member :	BAG LIPIKA LOKNATH, NANDI SOHAM DEEPAK, SHAIKH MOHD SAMEE RAFIQ, SHIVANGI MUZAMMIL JANESAB
Abstract :	Student mental health has emerged as a critical concern in higher education, with over 35% of college students reported to screen positive for one or more mental health disorders, while student suicides in India increased by 4.2% in 2022. Furthermore, 62% of youth reportedly avoid institutional digital mental-health tools due to concerns regarding privacy and data tracking. These challenges highlight the need for a secure, accessible, and privacy-focused solution for students, while also supporting college counselors in early identification and intervention. PsyConnect is proposed as a multimodal, multi-agent AI platform for student wellness using predictive analytics. The system provides an installable Progressive Web Application (PWA) with client-side end-to-end encryption, privacy-preserving data processing, and continuous well-being monitoring. A sequential deep-learning model analyzes historical wellness patterns to predict progressive stress trajectories, while LangChain-based RAG agents provide context-aware 24/7 preliminary conversational support. Edge-based multimodal processing combines textual, visual, and acoustic cues during optional counseling sessions, with a counselor dashboard providing real-time emotional trends and risk alerts. The proposed system aims to enable early detection of deteriorating stress patterns, improve access to preliminary mental-health support, reduce counselor workload, and encourage student participation through privacy-oriented design. PsyConnect is intended to function as an early-intervention and clinical-triage support framework, complementing human counselors rather than replacing professional mental-health care.
Group No.	49
Title :	Anna Sampada: An IoT-Enabled Machine Learning Framework for Surplus Food Management.

Guide Name :	Dr. Vikas Kaul, Associate Professor and HOD
Group member :	SHELAR PARTH GANESH, SHINDE DAKSH HARISHCHANDRA, SINGH RISHITA RAJESH, SINGH SHIVAM RAJESH
Abstract :	Food waste remains a major global challenge, while existing donation platforms often lack real-time food quality monitoring, volunteer coordination, and efficient management of large-scale food distribution events. To address these gaps, Anna Sampada integrates IoT-based food quality monitoring, ML-powered spoilage prediction, a Volunteer Connection Module, and a Bhandara Management System. IoT sensors monitor temperature and humidity, enabling real-time freshness prediction and early spoilage detection. The platform also connects donors, NGOs, and volunteers for efficient food collection and delivery, while the Bhandara module manages events, food requirements, surplus, and distribution. Blockchain is proposed as a future enhancement for transparent and tamper-proof donation tracking.
Group No.	50
Title :	ZeroEdge: An Edge Intelligence-Based Detection System for Identifying Zero-Day Attacks in IoT Networks
Guide Name :	Mrs. Reena Kothari, Asst. Professor, Asst. Professor
Group member :	GAUD ROHIT SHAMBHUNATH, SEVAK LUCKY RAJESH, KUMHAR SURESH RAMAVTAR, PARE LOKESH SANJAY
Abstract :	FraudShield AI is a web-based fraud detection system designed to identify suspicious online transactions in real time. The system uses Machine Learning to analyze transaction details such as amount, location, IP address, device, and user behavior. A trained model calculates a fraud risk score and classifies transactions as safe or suspicious. High-risk transactions are immediately flagged and alerts are sent to administrators for further investigation. The system provides a real-time dashboard for monitoring transactions, fraud statistics, trends, and suspicious activities. It also securely stores transaction records, fraud alerts, and audit logs for future analysis. By combining predictive analysis and real-time monitoring, the system aims to reduce false alarms and financial losses. Overall, FraudShield AI improves the security, reliability, and trustworthiness of digital payment systems.