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AN AUTONOMOUS INSTITUTION

DEPARTMENT OF COMPUTER SCIENCE AND BUSINESS SYSTEMS

TECHNICAL MAGAZINE

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MESSAGE FROM HEAD OF THE DEPARTMENT

The department of Computer Science & Business Systems is committed to excellence and success. Our students gain vital technical skills and soft skills with analytical thinking that make them industry ready. We offer our students the best hands-on experience, intellectual collaboration, research prospects, social impact projects, industry linkages so that they get the best placements and also contribute to societal growth. Department offers industry-based curriculum and an innovative teaching-learning process. The department always strives hard in tuning the young minds into globally competitive individuals by high quality, state-of-the-art education in computer science.

I am very proud to share that students of the department are working on interdisciplinary projects, publishing papers in international journals and at the same time a student wishes to achieve some recognition in extra-curricular or co-curricular activities.

Our faculty members aim at delivering high education blending their rich research experience with classroom teaching. I invite you to be part of our efforts as we drive the department of Computer Science to ever-greater heights. I wish all the students to outshine with a successful and accomplished career.

Dr. M. Malini

Associate Professor& Head

Computer Science and Business Systems

VISION AND MISSION OF THE DEPARTMENT

VISION OF THE DEPARTMENT

Achieve excellence in computer and business collaborations; develop technologically innovative and business transforming professionals.

MISSION OF THE DEPARTMENT

DM1: Provide a cutting-edge curriculum that blends computer science fundamentals with business insights.

DM2: Prepare students for diverse and dynamic career opportunities with quality teaching tools, infrastructure, or resources.

DM3: Provide a research-oriented environment that encourages faculty and students to engage in innovative projects.

DM4: Promote collaboration with industry and academic organizations to boost educational and research opportunities.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO 1: Graduates will build successful careers in information technology and management-related fields by applying strong technical and professional competencies gained through outcome-based learning.

PEO 2: Graduates will pursue higher education in information technology and management sciences, leading to academic, research-oriented, or advanced professional careers.

PEO 3: Graduates will pursue higher education in information technology and management sciences, leading to academic, research-oriented, or advanced professional careers.

PROGRAM OUTCOMES (POS)

PO 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: Individual and Team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: Project management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1: Career-oriented skills will enable learners to compete effectively and develop reliable, secure, and high-quality computing solutions for complex computer science and business system problems using modern engineering practices and data-driven techniques.

PSO 2: Computational thinking, business domain integration, and placement-oriented soft skills will support higher education, centres of excellence, innovation, and improved organizational efficiency.

MESSAGE FROM THE EDITORIAL TEAM

Dear Reader,

I hope this message finds you well. I am excited to be contributing to this edition of our department's magazine. As we continue to navigate the fast-paced worlds of Computer Science and Business Systems, there are so many emerging trends and developments that are reshaping both industries. Our magazine provides an excellent platform to explore these topics, share knowledge, and showcase the incredible work of our department's students, faculties.

In this edition, we could highlight a variety of subjects—from breakthrough technologies in AI and machine learning to the evolving role of data analytics in business decision-making. We could also feature success stories of our graduates, upcoming research projects, and articles that bridge the gap between technology and business practices.

I believe our content should inspire curiosity, provoke thoughtful discussion, and provide insight into the ways in which the intersection of computer science and business continues to drive innovation and transformation. I look forward to collaborating with all of you on this exciting project, and I'm confident that together we can produce an issue that will engage, inform, and inspire our readers.

Best regards,

The Editorial Team

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Dr. Malini.M,ASP&Head

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1. AI DRIVEN SCAM CALL AND SMS DETECTION AND AWARENESS SYSTEM

Abstract

The widespread use of mobile phones and digital communication has led to a rapid increase in scam calls and fraudulent SMS messages. These scams often involve phishing, financial fraud, identity theft, and social engineering techniques that deceive users into revealing sensitive information. Traditional spam filtering methods are often ineffective against evolving scam tactics, creating a need for smarter and more adaptive solutions. The AI-Driven Scam Call and SMS Detection and Awareness System utilizes Artificial Intelligence (AI), Machine Learning (ML), and Natural Language Processing (NLP) to identify and classify suspicious calls and messages. The system analyzes sender information, communication patterns, and message content to detect potential scams in real time. It categorizes communications as legitimate, suspicious, or fraudulent and alerts users accordingly. The system also includes an awareness module that provides risk warnings and educational guidance to help users recognize common scam techniques. By combining intelligent detection with user awareness, the solution enhances communication security, protects personal and financial information, and contributes to a safer digital environment. It can be applied in mobile applications, telecommunication networks, banking services, and cybersecurity platforms.

By
Mohammed Irfaan M /IV,CS&BS
Rishe C S /IV,CS&BS
Sarath Arjun R /IV,CS&BS
Vignesh T /IV,CS&BS

2. AI BASED INTERVIEWER SYSTEM

Abstract

The recruitment process plays a crucial role in identifying suitable candidates for various job positions, but traditional interview methods often require significant time, effort, and human resources. The AI Based Interviewer System is designed to automate and enhance the interview process using Artificial Intelligence (AI), Machine Learning (ML), and Natural Language Processing (NLP). The system conducts interviews by asking role-specific questions, analyzing candidate responses, and evaluating communication skills, confidence levels, technical knowledge, and overall performance. It can assess both text-based and voice-based responses to provide objective and consistent evaluations. The system generates detailed performance reports and scores based on predefined criteria, helping recruiters make informed hiring decisions. It also reduces interviewer bias and ensures a standardized assessment process for all candidates. Real-time feedback and automated analysis improve the efficiency of candidate screening and shortlisting. The system can be integrated with online recruitment platforms and virtual interview environments to support remote hiring processes. By combining intelligent evaluation with automated interview management, the AI Based Interviewer System enhances recruitment accuracy, saves time, and improves the overall hiring experience for both organizations and candidates.

By
Roshan kumar P/IV,CS&BS
Sanjai D/IV,CS&BS
Yabesh Martin P/IV,CS&BS
Manikkam V/IV,CS&BS

3. AI BASED TRAVEL BUDGET PLANNER

Abstract

Travel planning often involves estimating expenses, managing budgets, and selecting suitable destinations, which can be challenging and time-consuming for travelers. The AI Based Travel Budget Planner is designed to simplify this process by using Artificial Intelligence (AI) and Machine Learning (ML) to generate personalized travel plans based on user preferences, budget constraints, and travel requirements. The system analyzes factors such as transportation costs, accommodation expenses, food budgets, tourist attractions, and travel duration to create an optimized budget plan. It provides accurate cost estimates and suggests affordable alternatives to help users manage their expenses effectively. The system can recommend destinations, hotels, and travel activities that match the user's financial limits and interests. It also offers real-time budget tracking and spending analysis throughout the trip. Intelligent prediction models help users anticipate additional costs and avoid budget overruns. The planner supports both domestic and international travel, making it suitable for a wide range of travelers. By combining automated cost estimation, personalized recommendations, and smart financial planning, the AI Based Travel Budget Planner enhances travel experiences while ensuring efficient budget management and informed decision-making.

By

Pentala Harshavardhan/IV,CS&BS
Kampamalla Varshitha/IV,CS&BS
Gude varshita/IV,CS&BS
Saravanan V/IV,CS&BS

4. BLOCKCHAIN BASED STUDENT EDUCATION AND CAREER INFORMATION SYSTEM

Abstract

Managing student educational records and career information through traditional systems often leads to issues such as data tampering, document forgery, lack of transparency, and inefficient verification processes. The Blockchain Based Student Education and Career Information System is designed to provide a secure, transparent, and decentralized platform for storing and managing academic and career-related data. Using blockchain technology, the system ensures that educational certificates, academic achievements, skill records, and career information are securely recorded and cannot be altered without authorization. Students can maintain a verified digital profile that can be easily shared with educational institutions, employers, and other authorized organizations. The system enables quick and reliable verification of academic credentials, reducing the risk of fraudulent certificates and false claims. Smart contracts can be used to automate validation and access control processes, improving efficiency and trust. Educational institutions can securely update student records while maintaining data integrity and transparency. Employers can access verified information to make informed recruitment decisions. The system also supports lifelong learning records by maintaining a permanent and accessible academic history. By combining blockchain security with efficient information management, the Blockchain Based Student Education and Career Information System enhances trust, reliability, and transparency in education and career development processes.

By

S Yuvaraj/IV,CS&BS
Karthikeyan S/IV,CS&BS
Gokulavanan M/IV,CS&BS
Sarathkumar/IV,CS&BS

5. CUSTOMER CHURN PREDICTION DATA TO DECISION

Abstract

Customer retention is a critical factor for business growth, as losing existing customers can significantly impact revenue and profitability. The Customer Churn Prediction: Data to Decision system is designed to identify customers who are likely to discontinue using a product or service by leveraging Artificial Intelligence (AI), Machine Learning (ML), and data analytics techniques. The system analyzes customer behavior, transaction history, service usage patterns, engagement levels, and demographic information to detect early signs of churn. Advanced predictive models classify customers based on their likelihood of leaving, enabling organizations to take proactive retention measures. The system provides actionable insights and decision-support recommendations to help businesses develop targeted marketing strategies and personalized customer engagement plans. Data visualization dashboards present key trends, risk factors, and churn probabilities in an easy-to-understand format. Real-time analysis allows organizations to monitor customer behavior continuously and respond quickly to potential risks. The solution helps improve customer satisfaction, reduce attrition rates, and increase long-term customer loyalty. It can be applied across industries such as telecommunications, banking, retail, insurance, and subscription-based services. By transforming raw customer data into meaningful business decisions, the Customer Churn Prediction: Data to Decision system supports effective customer retention and sustainable organizational growth.

By
Bandikari Harshitha/IV,CS&BS
Elakiya.S/IV,CS&BS
Gowri Shankar.R/IV,CS&BS
S.Kishan/IV,CS&BS

6. AI-POWERED SMART COLLABORATION & SKILL MATCHING PLATFORM

Abstract

The growing demand for effective teamwork and talent utilization has created a need for intelligent platforms that can connect individuals based on their skills, interests, and project requirements. The AI-Powered Smart Collaboration & Skill Matching Platform is designed to facilitate efficient collaboration by using Artificial Intelligence (AI), Machine Learning (ML), and data analytics to match users with suitable teammates, mentors, and opportunities. The system analyzes user profiles, technical skills, experience, interests, and career goals to identify the most relevant collaboration possibilities. It provides personalized recommendations for projects, internships, research activities, and team formations based on compatibility and expertise. Intelligent matching algorithms help organizations and educational institutions build balanced and productive teams. The platform also supports communication, task management, and progress tracking to enhance collaboration efficiency. Real-time skill assessment and profile updates ensure accurate matching and continuous improvement of recommendations. Users can showcase their achievements, certifications, and project portfolios to strengthen their professional profiles. By combining intelligent skill analysis with automated matchmaking and collaboration tools, the AI-Powered Smart Collaboration & Skill Matching Platform improves team productivity, enhances learning opportunities, and supports professional growth in academic and organizational environments.

By
Bysani Manish Reddy/IV,CS&BS
Pippalla Varun Rishi/IV,CS&BS
Ramireddy Devananda Reddy/IV,CS&BS
Yokeshwaran K/IV,CS&BS

7. BUSINESS SUSTAINABILITY & ESG TRACKER FOR SMEs

Abstract

Small and Medium Enterprises (SMEs) are increasingly expected to monitor and improve their Environmental, Social, and Governance (ESG) performance to meet regulatory requirements, stakeholder expectations, and sustainability goals. The Business Sustainability & ESG Tracker for SMEs is designed to help organizations efficiently measure, track, and manage their sustainability initiatives through a centralized digital platform. The system collects and analyzes data related to energy consumption, carbon emissions, waste management, resource utilization, employee welfare, diversity, compliance, and governance practices. Using Artificial Intelligence (AI) and data analytics, it generates ESG performance metrics, sustainability reports, and actionable insights to support informed decision-making. The platform enables businesses to monitor progress toward sustainability targets and identify areas requiring improvement. Automated reporting features simplify compliance with ESG frameworks and industry standards while reducing manual effort. Real-time dashboards provide a clear view of key sustainability indicators and organizational performance trends. The system also helps businesses evaluate the environmental and social impact of their operations and implement effective improvement strategies. It supports transparency, accountability, and responsible business practices across various sectors. By combining intelligent analytics with ESG monitoring and reporting capabilities, the Business Sustainability & ESG Tracker for SMEs promotes sustainable growth, operational efficiency, and long-term business resilience.

By
Nadhiya R/IV,CS&BS
Vinotha T/IV,CS&BS
Durgadevi D/IV,CS&BS

8. SIGNBRIDGE - REALTIME SPEECH TO SIGN TRANSLATOR

Abstract

Communication barriers between hearing individuals and people with hearing impairments often create challenges in education, workplaces, healthcare, and daily interactions. SignBridge – Real-Time Speech to Sign Translator is designed to improve accessibility and inclusivity by converting spoken language into sign language in real time using Artificial Intelligence (AI), Natural Language Processing (NLP), and speech recognition technologies. The system captures speech input, processes and interprets the spoken content, and translates it into corresponding sign language gestures displayed through animated avatars or visual representations. Advanced language processing techniques ensure accurate interpretation of words, phrases, and contextual meanings for effective communication. The platform supports real-time translation, enabling smooth and natural interactions between hearing and non-hearing individuals. It can be integrated into mobile applications, educational platforms, customer service systems, and public communication environments.Continuous learning capabilities improve translation accuracy and adaptability to diverse communication scenarios. By combining intelligent speech processing with real-time sign language translation, SignBridge enhances accessibility, promotes inclusivity, and supports equal communication opportunities for individuals with hearing impairments.

By
Dharanish A M/III,CS&BS
Kiruthickrosan M/III,CS&BS
Praneethkumar P/III,CS&BS
Vidyasagar Pathak/III,CS&BS

9. ADAPTIVE INTRUSION DETECTION SYSTEM VIA TRANSFORMER-BASED MODELS

Abstract

The increasing complexity of cyber threats and network attacks has made traditional security mechanisms less effective in detecting sophisticated and evolving intrusions. The Adaptive Intrusion Detection System via Transformer-based Models is designed to enhance network security by leveraging Artificial Intelligence (AI), Deep Learning, and Transformer architectures for intelligent threat detection. The system analyzes network traffic, user behavior, system logs, and communication patterns to identify malicious activities and potential security breaches in real time. Transformer-based models enable the system to capture complex relationships and long-range dependencies within large volumes of security data, improving detection accuracy. The adaptive learning capability allows the model to recognize emerging attack patterns and respond to evolving cyber threats without extensive manual intervention. The system classifies network activities as normal or suspicious and generates timely alerts for security administrators. The solution helps reduce false positives and enhances the efficiency of security monitoring processes. It can be deployed across enterprise networks, cloud environments, data centers, and critical infrastructure systems. By combining transformer-based intelligence with adaptive intrusion detection techniques, the system strengthens cybersecurity defenses, improves threat response capabilities, and supports proactive network protection.

By
Athish kumar S/III,CS&BS
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Gunasekar N/III,CS&BS
A.Jerome Daniel Raj/III,CS&BS

10. AN AI-DRIVEN DYNAMIC PRODUCT RECOMMENDATION SYSTEM FOR ONLINE SHOPPING

Abstract

The rapid growth of e-commerce platforms has increased the need for personalized shopping experiences that help customers discover products relevant to their preferences and needs. An AI-Driven Dynamic Product Recommendation System for Online Shopping is designed to enhance customer engagement and satisfaction by utilizing Artificial Intelligence (AI), Machine Learning (ML), and data analytics techniques. The system analyzes user behavior, browsing history, purchase records, search patterns, and product preferences to generate personalized product recommendations in real time. Advanced recommendation algorithms identify customer interests and predict future purchasing behavior to deliver accurate and relevant suggestions. The dynamic nature of the system allows recommendations to adapt continuously based on changing user interactions and market trends. It helps customers make informed purchasing decisions while reducing the time required to search for suitable products. The platform also assists businesses in increasing sales, improving customer retention, and enhancing overall user experience. Real-time analytics and recommendation insights enable online retailers to understand consumer behavior more effectively. The system can be integrated with e-commerce websites, mobile shopping applications, and digital marketplaces. By combining intelligent personalization with adaptive recommendation strategies, the AI-Driven Dynamic Product Recommendation System for Online Shopping improves shopping efficiency, customer satisfaction, and business performance.

By
Ganga prakashini V/III,CS&BS
Madhumitha R/III,CS&BS
Kiruba Angel A/III,CS&BS
Shobana V/III,CS&BS

11. AI-POWERED BUDGET TRACKER

Abstract

Managing personal finances effectively is essential for achieving financial stability, yet many individuals struggle to track expenses, control spending, and maintain savings goals. The AI-Powered Budget Tracker is designed to simplify financial management by utilizing Artificial Intelligence (AI), Machine Learning (ML), and data analytics to monitor income, expenses, and spending habits. The system automatically categorizes transactions, analyzes financial patterns, and provides real-time insights into user spending behavior. Intelligent prediction models help forecast future expenses and identify potential budget risks before they occur. The platform offers personalized budgeting recommendations and savings strategies based on individual financial goals and lifestyle preferences. Interactive dashboards and visual reports enable users to understand their financial status and make informed decisions. The system can generate alerts for overspending, bill payments, and unusual transactions to improve financial discipline and awareness. It also supports goal-based planning for savings, investments, education, travel, and other financial objectives. The solution can be integrated with banking applications and digital payment platforms for seamless financial tracking. By combining intelligent analytics with automated budget management, the AI-Powered Budget Tracker enhances financial planning, promotes responsible spending, and supports long-term financial well-being.

By
Burra Yuvaraju/III,CS&BS
Chitrala Abhishek/III,CS&BS
Madanapalli Narasimha/III,CS&BS
Madineni Yathendra Kumar/III,CS&BS

12. SMART EYES

Abstract

Smart Eyes is an intelligent vision-based assistance system designed to enhance safety, accessibility, and situational awareness through the use of Artificial Intelligence (AI), Computer Vision, and Machine Learning (ML) technologies. The system captures and analyzes real-time visual information from cameras or mobile devices to identify objects, people, obstacles, text, and environmental conditions. Advanced image processing algorithms enable accurate detection and recognition, allowing the system to provide timely alerts and relevant information to users. It can assist visually impaired individuals by converting visual data into audio or text-based feedback, helping them navigate their surroundings more independently. The platform supports real-time object recognition, scene understanding, and obstacle detection to improve user safety and convenience. Intelligent monitoring capabilities allow the system to adapt to different environments and usage scenarios. The solution can be integrated into smartphones, wearable devices, smart surveillance systems, and assistive technologies. Real-time notifications and accessibility features enhance user interaction and decision-making. The system promotes independence, safety, and accessibility through intelligent visual assistance. By combining AI-driven image analysis with user-friendly support features, Smart Eyes provides an effective solution for smart vision assistance and environmental awareness.

By

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Syed Sha Mohamed Jafar/III,CS&BS
Divagar S/III,CS&BS
Prem Amarnarayana/III,CS&BS

13. DERMAWATCH

Abstract

DermaWatch is an AI-powered skin health monitoring system designed to assist users in the early detection and assessment of various skin conditions. The system utilizes Artificial Intelligence (AI), Machine Learning (ML), and Computer Vision techniques to analyze skin images and identify potential abnormalities such as acne, eczema, psoriasis, pigmentation issues, and suspicious skin lesions. By processing image patterns, texture, color variations, and other dermatological features, the system provides preliminary assessments and risk evaluations with high accuracy. Users can upload images through a mobile or web application and receive instant analysis along with relevant health insights. The platform helps track changes in skin conditions over time, enabling continuous monitoring and better awareness of skin health. Intelligent analytics assist users in recognizing symptoms that may require professional medical attention. The system also provides educational information and preventive care recommendations to encourage healthy skincare practices. Secure data management ensures the privacy and confidentiality of user information. The solution can support healthcare professionals by serving as a preliminary screening and monitoring tool. By combining advanced image analysis with intelligent health assessment, DermaWatch promotes early awareness, proactive care, and improved management of skin-related conditions.

By

Khizar Ansari A/III,CS&BS
Ragishwaran K M/III,CS&BS
Adithyasriram S/III,CS&BS
Prithiviraj C/III,CS&BS

14. LEVERAGING AI&ML FOR AUTOMATED FAKE NEWS DETECTION AND VERIFICATION

Abstract

The rapid spread of information through digital platforms and social media has increased the prevalence of fake news, misinformation, and misleading content, creating significant challenges for individuals and organizations. Leveraging AI & ML for Automated Fake News Detection and Verification is designed to identify and verify the authenticity of news articles, social media posts, and online content using Artificial Intelligence (AI), Machine Learning (ML), and Natural Language Processing (NLP) techniques. The system analyzes textual content, writing patterns, source credibility, sentiment, and contextual information to distinguish between genuine and misleading information. Advanced machine learning models are trained on large datasets to detect deceptive content with high accuracy and efficiency. The platform performs automated fact-checking by comparing information with trusted sources and verified databases. Real-time analysis enables users to assess the reliability of news before sharing or acting upon it. The system also provides credibility scores and explanatory insights to help users understand the reasons behind its predictions. By combining intelligent content analysis with automated verification techniques, the system promotes information accuracy, reduces the spread of misinformation, and supports informed decision-making in the digital age.

By

Dharshini Priya S/III,CS&BS
Indhu A/III,CS&BS
Prathiyuksha R/III,CS&BS

15. FAKE REVIEW DETECTION SYSTEM

Abstract

Online reviews play a crucial role in influencing customer purchasing decisions, but the increasing presence of fake and misleading reviews has reduced the reliability of digital platforms. The Fake Review Detection System is designed to identify fraudulent reviews and enhance trust in online marketplaces using Artificial Intelligence (AI), Machine Learning (ML), and Natural Language Processing (NLP) techniques. The system analyzes review content, user behavior, rating patterns, linguistic features, and posting activities to distinguish genuine reviews from deceptive ones. Advanced machine learning models are trained to detect suspicious patterns that may indicate spam, manipulated feedback, or coordinated review campaigns. The platform assigns credibility scores to reviews and highlights potentially fraudulent content for users and administrators. Real-time analysis enables businesses and consumers to make informed decisions based on trustworthy information. The system also helps platform administrators maintain review quality and reduce the impact of misleading feedback. Continuous learning capabilities allow the model to adapt to evolving review manipulation techniques and emerging fraud patterns. By combining intelligent review analysis with automated fraud detection, the Fake Review Detection System improves transparency, strengthens consumer confidence, and supports fair and reliable online decision-making.

By

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Ilaiya Bharathi A/II,CS&BS
Sajjath Umar M/II,CS&BS

16. HUMAN RESPONSE LATENCY ANALYZER USING AI

Abstract

Human response time is an important indicator of cognitive performance, attention levels, decision-making efficiency, and overall behavioral patterns. The Human Response Latency Analyzer using AI is designed to measure, analyze, and interpret response delays in various human interactions using Artificial Intelligence (AI), Machine Learning (ML), and data analytics techniques. The system collects response-time data from activities such as questionnaires, interviews, assessments, user interactions, and cognitive tasks to evaluate reaction speed and behavioral trends. Advanced AI models analyze latency patterns to identify factors such as attention fluctuations, stress levels, engagement, and decision-making performance. The platform provides detailed insights and visual reports that help users and organizations understand response behavior more effectively. Real-time monitoring enables continuous assessment and timely identification of unusual response patterns. The system can be applied in education, recruitment, healthcare, psychology, user experience research, and workplace productivity analysis. Intelligent analytics support personalized recommendations and performance improvement strategies based on observed behavioral data. Secure data processing ensures the privacy and confidentiality of user information throughout the analysis process. By combining AI-driven behavioral analysis with response-time measurement, the Human Response Latency Analyzer provides valuable insights into human performance, cognitive behavior, and interaction efficiency.

By

Chithrakala M/II,CS&BS
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Kanishka R/II,CS&BS
Madhumitha A/II,CS&BS

17. VIOLENCE DETECTION IN VIDEOS USING DEEP LEARNING

Abstract

The increasing volume of video content generated through surveillance systems, public spaces, and digital platforms has created a need for automated methods to identify violent activities quickly and accurately. Violence Detection in Videos using Deep Learning is designed to analyze video streams and detect violent incidents in real time using Artificial Intelligence (AI), Deep Learning, and Computer Vision techniques. The system processes video frames to identify patterns associated with physical aggression, abnormal movements, fights, and other potentially harmful activities. Advanced deep learning models learn spatial and temporal features from video data, enabling accurate recognition of violent behavior under different environmental conditions. The platform continuously monitors video feeds and generates instant alerts when suspicious or violent activities are detected. Real-time detection helps security personnel and authorities respond promptly to potential threats and emergencies. The system reduces the need for constant manual monitoring and improves the efficiency of surveillance operations. It can be deployed in public areas, educational institutions, transportation hubs, workplaces, and smart city infrastructures. Visual analytics and event logging features assist in incident review and security assessment. By combining intelligent video analysis with automated threat detection, the Violence Detection in Videos using Deep Learning system enhances public safety, strengthens security monitoring, and supports rapid incident response.

By

Balamani P/II,CS&BS
Kavinaya R/II,CS&BS
Janani S/II,CS&BS
Jeevitha S/II,CS&BS
Sivasree R/II,CS&BS

18. LANGUAGE AGNOSTIC CHATBOT FOR COLLEGE ADMISSION

Abstract

The college admission process often involves answering numerous queries from students and parents regarding courses, eligibility criteria, application procedures, fees, scholarships, and important deadlines. The Language Agnostic Chatbot for College Admission is designed to provide instant and accurate assistance by using Artificial Intelligence (AI), Natural Language Processing (NLP), and Machine Learning (ML) technologies. The system enables users to interact in multiple languages, allowing students from diverse linguistic backgrounds to access admission-related information without language barriers. It understands user queries, processes them intelligently, and delivers relevant responses in the preferred language of the user. The chatbot provides information about academic programs, admission requirements, campus facilities, placement opportunities, and application status. Real-time response capabilities reduce the workload of administrative staff and improve communication efficiency. The system supports continuous learning to enhance response accuracy and adapt to new admission policies and institutional updates. It can be integrated with college websites, mobile applications, and student support portals for seamless accessibility. User-friendly interactions and multilingual support improve the overall admission experience for prospective students. By combining intelligent query handling with language-independent communication, the Language Agnostic Chatbot for College Admission enhances accessibility, improves student engagement, and streamlines the admission support process.

By

Abirami K/II,CS&BS
Bharathipriya M/II,CS&BS
Malini S/II,CS&BS
Samina Banu M/II,CS&BS

19. AI CROP DISEASE DETECTION

Abstract

Agriculture plays a vital role in food production, and the early detection of crop diseases is essential for improving yield and reducing economic losses. AI Crop Disease Detection is designed to assist farmers in identifying plant diseases quickly and accurately using Artificial Intelligence (AI), Machine Learning (ML), and Computer Vision technologies. The system analyzes images of crop leaves, stems, and fruits to detect visible symptoms such as discoloration, spots, wilting, and infections. Advanced image classification models compare captured images with trained datasets to identify specific diseases and assess their severity. The platform provides instant results along with recommendations for preventive measures and suitable treatment options. Early detection helps farmers take timely action, reducing the spread of diseases and minimizing crop damage. The system can be accessed through mobile applications, making it convenient for farmers to use directly in the field. Continuous learning mechanisms improve detection accuracy by adapting to new disease patterns and environmental conditions. The solution supports various crop types and can assist agricultural experts in monitoring large-scale farming operations. By combining intelligent image analysis with automated disease identification, AI Crop Disease Detection enhances agricultural productivity, promotes sustainable farming practices, and supports informed decision-making for better crop management.

By

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Harshit.R/II,CS&BS
Lalith kishore S/II,CS&BS
Mohammed harish K/II,CS&BS

20. TRAFFIC VIOLATOR DETECTION USING ML

Abstract

Road traffic violations are a major cause of accidents, congestion, and safety concerns in urban and rural transportation systems. Traffic Violator Detection using ML is designed to automatically identify and monitor traffic rule violations using Artificial Intelligence (AI), Machine Learning (ML), and Computer Vision technologies. The system analyzes video feeds and images captured from surveillance cameras to detect violations such as overspeeding, signal jumping, illegal parking, lane violations, and riding without safety equipment. Advanced machine learning models process vehicle movements, traffic patterns, and visual data to accurately recognize rule-breaking activities in real time. The platform can automatically capture vehicle details and generate violation records for further action by traffic authorities. Real-time monitoring reduces the need for manual surveillance and improves the efficiency of traffic management operations. The system helps authorities enforce regulations more effectively and promotes safer driving behavior among road users. By combining intelligent video analysis with automated violation detection, Traffic Violator Detection using ML enhances road safety, improves traffic regulation enforcement, and contributes to more efficient transportation management.

By

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