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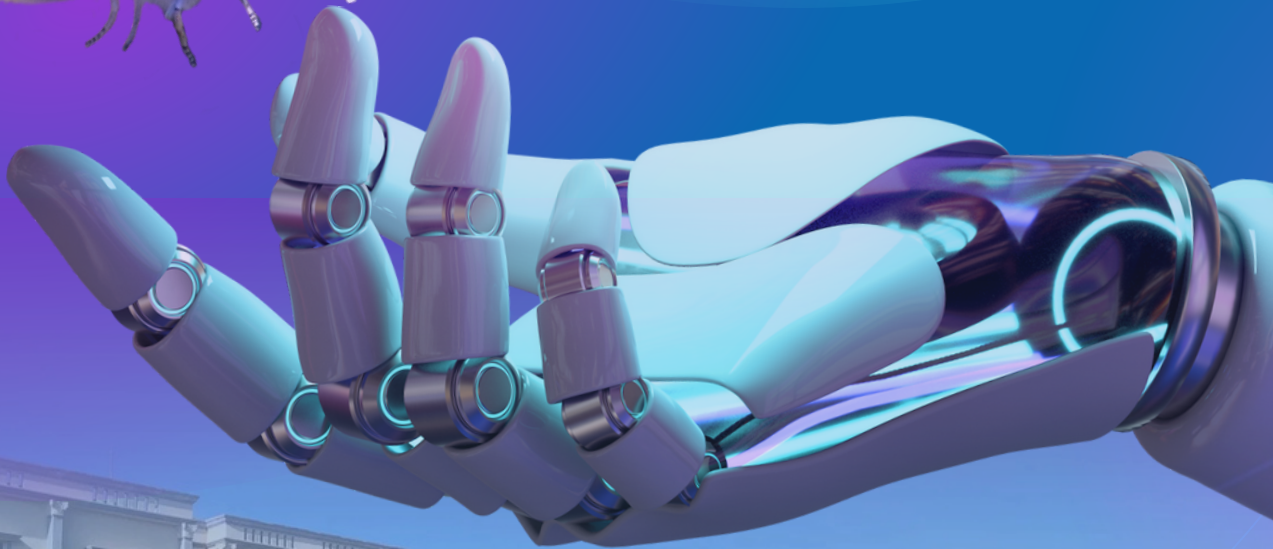
SAIRAM COLLEGE OF ENGINEERING

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ADVAYA

UNITED WE STAND



2024





Dr. Sai Prakash Leo Muthu
Chief Executive Officer

CEO's Message

I am elated to see how Sairam Family has spread its wings to cover a vast milieu of activities in both technical and non-technical arenas. With passing days, I see the progress of the institution being reflected through the budding minds of brilliant students who are seen investing incessant efforts to emerge as best in whatever project they undertake. I encourage all the students to unfurl their revolutionary ideas, giving wings to their dream.

Advaya is a creative and resplendent platform for students to outspread their talent, creativity, and achievements. Every small contribution counts towards a dignified victory and I am delighted to spectacle the unity shown by Sairam Family in making this technical fest successful. I wish Sri Sairam College of Engineering all the very best in all their future endeavours.

PRINCIPAL's Message

I am extremely glad and proud to be part of this inaugurate the technical symposium of Computer Science & Engineering Department - Advaya, 2024. This year has been a vastitude of elevation in academics and cultural activities. With the dedication and hard work of all the members of our Sairam family, multifaceted arenas like admissions, cultural activities, academics and everything has been on the brim of excellence. Throughout the year, the institution conducts a spectrum of theme-based workshops, competitions, seminars, webinars and invites dignified speakers to address & guide our students of the emerging generation. All of such activities are upheld through this magazine which reflects the achievements and rewards our institution has bagged in this academic year. Finally, I would applaud the meticulous efforts of the editorial team, faculty, staff and students in preparing the department magazine and also for showing creativity in every aspect. We shall successfully trudge ahead in building a better nation through quality education



Dr. B Shadaksharappa
Professor & Principal



Dr. R Arun Kumar
Management Representative

MR's Message

It gives me great pleasure to note that the department of Computer Science & Engineering is bringing out their department magazine for the year 2024.

Receiving a mere graduation degree is not what the present industry demands; the industry at present is hungry for talent, creativity and brainstorming ideas. This technical symposium is going to be the most suited platform for our students to explore themselves through a spectrum of technical activities of coding, programming, debugging, etc. After rigorous classes and laborious exam days, such a technical carnival will not just refresh the young minds but also reinvigorate their enthusiasm to think out of the box, participate and make this event a grand success. Such platforms will give them the needed exposure to excel in practical life in connection to current industry trends.

I wish the department of Computer Science & Engineering all the very best in this as well as their upcoming endeavours. This magazine shall be a souvenir to re-visit lifelong.

HOD's Message

Computer Science Engineering (CSE) is a rapidly advancing field that involves development, design, and maintenance of software and hardware systems. Over the years, CSE has experienced numerous advancements that has transformed the industry and impacted our daily lives. This is a civilization which has undergone major adaption in the space of a few hundred years whilst assured technologies have proposed and become a part of the social fabric. Naturally, the more knowledge you have, the more you are able to exert the power of information and communication technology.

The department has competent faculty members who skillfully render indispensable knowledge to the students. The department is well equipped with sufficient quantity of computers and the latest software with high end systems capable of high-speed data dispensation. The department possesses library, multimedia, projecting facility and internet facility, which is Wi-Fi enabled. The faculty and students are encouraged to contribute in assorted national and international conferences. To enhance the technical knowledge of students, the department organizes frequent guest lectures, workshops, seminars. In order to comprise close association with industry, industrial communication and industrial expeditions are organized which further enables the students to experience the industrial environment.



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Professor & Head

FACULTY MEMBERS 2K24



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STUDENT INSIGHTS

Enhanced Class Dynamics Using Blue Eyes Technology

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Science cannot be assessed solely on development and progress. This demonstrates the potential of the human mind. It's now reached the "Blue Eyes Technology" which utilizes electronics to sense and regulate human emotions. Human emotions can be sensed through the eyes, fingers, and speech. It is a non-invasive, user-friendly computing technology that aims to create machines capable of understanding and responding to human emotions. This suggested system uses facial recognition, audio analysis, and physiological sensors to track student's emotional states and participation levels during lectures or presentations. The data is collected and processed in real time to give teachers with actionable insights, allowing them to dynamically alter their teaching tactics. Our smart classroom uses Blue Eyes Technology to provide a friendly and inclusive learning environment in which instructors may adjust their approach to meet the specific requirements and emotional well-being of their pupils. This research describes an online educational platform that uses facial expression recognition technologies to track student achievement in the classroom. A camera takes and processes photos of pupils in the classroom, extracting facial data using detection methods. Student's

learning statuses are tested using expression recognition algorithms. These findings have significant implications for educational institutions. We provide a comprehensive study of these technologies and determine the computational requirements of a system that incorporates these technologies. These project concepts demonstrate Blue Eyes Technology's wide uses in a variety of fields, including healthcare, education, entertainment, and human-computer interaction.

Sentiment Analysis of Incoming Voice Calls

Pujashree VMahima SahuMahesh Kumar ChaudharyManu Priya K
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This project addresses the growing demand for real-time sentiment analysis in the context of incoming voice calls, recognizing the increasing importance of voice-based interactions in today's telecommunications landscape. The proposed framework employs advanced natural language processing (NLP) techniques and machine learning models to assess emotional content in real-time, integrating voice signal processing, feature extraction, and sentiment classification for adaptability across linguistic and cultural contexts. The project not only introduces a robust framework for real-time sentiment analysis but also addresses challenges specific to voice communication. The broad applications extend to industries like customer service, market research, and social monitoring, providing actionable insights for organizations to comprehend and respond to sentiments expressed in dynamic landscape of real-time voice communication.

Secure Trace: Blockchain Solution For Product Authentication

Kishan Kumar Akash Vats Abhimanyu Kumar Arpit Kumar
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Blockchain innovations have acquired interest in the course of the most recent years. One of the most talked about issues is currency exchange., but its application is not limited only to Digital currency. so it has the potential to influence different business sectors. Blockchain technology has brought greater transparency and ease in large transactions. We can detect counterfeit goods using blockchain technology. The question that arises when buying any item in today's world is whether it is fake or not. And the lack of these things has been shown a huge impact on economic progress. Therefore, in order to curb all counterfeit goods, it is important to bring transparency about the goods to the notice of the consumers. The growing presence of counterfeit and unsafe products in the world is a cause for concern and blockchain technology has taken the next step towards its complete annihilation. Not only the use of technology will reduce the production of counterfeit goods, but everyone needs to be aware of this. By producing and packaging the right items each of those items needs to be given a digital code with its own identity. The software implementation process in which the product code is scanned using this application and then verify if the given product is counterfeit or not.

Unlocking Empathy: The Promise of Blue Eyes Technology

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This project addresses the growing demand for real-time sentiment analysis in the context of incoming voice calls, recognizing the increasing importance of voice-based interactions in today's telecommunications landscape. The proposed framework employs advanced natural language processing (NLP) techniques and machine learning models to assess emotional content in real-time, integrating voice signal processing, feature extraction, and sentiment classification for adaptability across linguistic and cultural contexts. The project not only introduces a robust framework for real-time sentiment analysis but also addresses challenges specific to voice communication. The broad applications extend to industries like customer service, market research, and social monitoring, providing actionable insights for organizations to comprehend and respond to sentiments expressed in dynamic landscape of real-time voice communication.

Augmented and virtual reality

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This paper explores the current landscape of augmented and virtual reality technologies, focusing on their impact across various industries and the challenges that persist in their widespread adoption. The potential of augmented and virtual reality to revolutionize user experiences, training simulations, and interactive storytelling is significant. However, existing issues related to hardware limitations, user interface design, and ethical considerations have hindered their seamless integration into everyday life. Through a comprehensive analysis, this paper aims to shed light on the opportunities and obstacles associated with augmented and virtual reality, offering valuable insights for researchers, developers, and industry professionals. Augmented and virtual reality technologies have shown great promise in revolutionizing how we interact with the digital world, yet several obstacles hinder their widespread adoption and

integration. These obstacles include but are not limited to the limitations of existing hardware, challenges in designing intuitive user interfaces, addressing ethical concerns, and scaling the technology for diverse applications across industries. The lack of standardized frameworks and best practices further complicates the development and deployment of augmented and virtual reality solutions. This paper aims to address these challenges by identifying key areas of improvement and providing actionable recommendations for stakeholders in the augmented and virtual reality ecosystem.

Overview of Augmented and Virtual Reality Technologies

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This paper delves into the dynamic landscape of Augmented Reality (AR) and Virtual Reality (VR), providing a comprehensive overview of their technological foundations, applications, and evolving impact across various industries. Through a synthesis of current research and technological advancements, the paper aims to elucidate the unique features, challenges, and potential future developments in AR and VR, offering insights into their transformative potential for human-computer interaction, education, healthcare, entertainment, and beyond.

The analysis explores key trends, emerging use cases, and the convergence of AR and VR technologies, fostering a deeper understanding of the immersive experiences that are reshaping our digital and physical world. It delves into the multifaceted realms of Augmented Reality (AR) and Virtual Reality (VR), exploring their technological underpinnings, diverse applications, and profound implications for various industries. The study critically examines the evolution of AR and VR technologies, offering an indepth analysis of their current state and potential future trajectories. Through a synthesis of recent research, the paper sheds light on the transformative impact of these immersive technologies on human-computer interaction, education, healthcare, entertainment, and beyond.

In conclusion, this paper emphasizes the pivotal role of AR and VR in shaping the future digital landscape. As these technologies continue to mature, their impact on how we learn, work, and entertain ourselves will be profound. The paper advocates for continued research and collaboration to overcome challenges, ensuring a responsible and inclusive integration of augmented and virtual realities into our daily lives. The journey into the immersive horizon has just begun, promising a future where reality is not confined to the physical, but intricately woven with the digital, creating a richer and more interconnected human experience.

5G WIRELESS TECHNOLOGY

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5G, the fifth generation of mobile network technology, promises a significant leap forward in wireless communication. It aims to deliver exponentially faster data speeds, ultra-low latency, increased network capacity, and enhanced reliability compared to its predecessor.

This abstract highlights the key features of 5G and its potential impact:

Unprecedented Speed: 5G offers multi-Gbps peak data rates, significantly exceeding those of previous generations. Real-Time Response: Ultra-low latency allows for near-instantaneous communication, critical for applications like remote surgery and autonomous vehicles. Massive Network Capacity: 5G can connect a multitude of devices simultaneously, fostering the growth of the Internet of Things (IoT). This technological advancement has the potential to revolutionize various aspects of our lives, including:

METaverse.

Yamene . R Krishnaveni . S Kavya Latha Priya . M . S
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The Metaverse is the post-reality universe, a perpetual and persistent multiuser environment merging physical reality with digital virtuality. It is based on the convergence of technologies that enable multisensory interactions with virtual environments, digital objects and people such as virtual reality (VR) and augmented reality (AR). Hence, the Metaverse is an interconnected web of social, networked immersive environments in persistent multiuser platforms. It enables seamless embodied user communication in real-time and dynamic interactions with digital artifacts. Its first iteration was a web of virtual worlds where avatars were able to teleport among them. The contemporary iteration of the Metaverse features social, immersive VR platforms compatible with massive multiplayer online video games, open game worlds and AR collaborative spaces.

An Education Goal to Achieve Equitable Quality Education

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2030 Sustainable Development Agenda is intended to leave no one behind; many people see it as an all-encompassing, global, and interdependent concept. High-quality education will contribute to the development of more stable and long-lasting communities by broadening access to opportunities and fostering greater tolerance within society. Education reforms guaranteeing access to quality

primary education rank highly among the Millennium Development Goals. Goal 4 of the 2030 Sustainable Development Agenda emphasizes education's transformative power for the sake of the

world at large. Public schools are responsible for delivering a high-quality education to all students, and businesses and philanthropists may help to make this a reality. The Higher Education Sustainability Initiative and the UNICEF Global Action Plan both have the same overarching goal of assisting educational institutions in developing community-wide strategies for environmental sustainability. In 2018, 20% of the world's children were not enrolled in schools, and, of those that were, over half had low literacy and numeracy skills. All young people across the world should be able to demonstrate proficiency in numeracy and functional reading by 2030. In this context, this article aims to discuss the connections between the Sustainable Development Goals (SDG 4) and education, research studies from many countries, their significance to education, and future expectations

AgriTech

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In the early days of agricultural trade, farmers often faced significant challenges in accessing fair markets, negotiating decentralized protocol designed to alleviate these early-stage problems by introducing dynamic pricing mechanisms and facilitating direct peer-to-peer transactions between farmers and buyers in the agricultural sector.

Utilization of Unmanned Aerial Vehicle In Smart Agriculture

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Unmanned aerial vehicles (UAVs), commonly referred to as drones, equipped with vertical take-off and landing (VTOL) capabilities, have emerged as pivotal tools in various fields. The World Health Organization underscores the pervasive issue of chemical incidents, estimating millions of cases annually. Tragically, a substantial number of deaths result from pesticide misuse and mishandling, particularly prevalent in developing nations. The repercussions extend beyond mortality,

encompassing a spectrum of health concerns such as cancer, endocrine disruption, reproductive complications, cranial disorders, respiratory ailments, allergies, and hypersensitivity, all stemming from chemical exposure. Moreover, pesticides, including insecticides, pose acute risks such as skin and ocular inflammation, along with the insidious threat of highly toxic substances. Their deleterious impact extends to the body's physiological systems and internal secretions, even at low exposure levels during application. Notably, chemical exposure can manifest in a myriad of adverse health effects, altering mood, behaviour, coordination, responsiveness, visual acuity, and cognitive faculties. In response to these challenges, the deployment of drones for crop fertilization stands as a transformative innovation. This project endeavors to formulate a comprehensive framework for a drone tailored to efficient fertilization of agricultural lands. Central to this initiative is the

development and refinement of a sophisticated spraying mechanism integrated into the quadcopter system. This mechanism, meticulously designed and engineered, promises to optimize both time and labour efficiency in agricultural practices, ushering in a new era of precision farming.

Cloud Computing Security Challenges

Sathya G
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Scientific computing in the 21st century has evolved from fixed to distributed work environment. The current trend of Cloud Computing allows accessing business applications from anywhere just by connecting to the Internet. The circumscribed control over the data may cause various security issues in cloud computing like Data crash, Misuse and reprehensible use of cloud computing, Insecure API, Wicked Insiders, Shared technology issues/multi-tendency nature, Account services and Traffic Hijacking. This thesis aims to identify security challenges for adapting cloud computing and their solutions from real world for the challenge that do not have any proper mitigation strategies identified through literature review. The objective is to identify existing cloud computing security challenges and their solutions. There are 43 challenges and 89 solutions are identified from literature review using snowball sampling and other techniques.

Cyber Terrorism

NELLAI SIVAGAMI.S

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In the 21st Century, Modern technology and information systems are inevitable and have become an integral part of our lives. The internet has become the backbone of our communication, entertainment, education, work, and many more. With the help of modern technological advancements, we can achieve things that were once thought impossible, and it has opened up a world of opportunities for us. But on the contrary, it has its cons. The over-dependency on the internet increases vulnerabilities. These vulnerabilities weaken systems and open the door to malicious attacks. The attackers will look to exploit any of them to achieve their end goal. Cyber security is one of the important aspects, the failure of which turned into a battlefield for Cyberattacks, Cybercrimes, and Cyber terrorism. Cyberterrorism There have been several stumbling blocks to creating a consistent definition of the term “cyberterrorism.” However, simply put, Cyberterrorism refers to the convergence of cyberspace and terrorism. It refers to unlawful attacks and threats of attacks against computers, networks, and the information stored therein when done to intimidate or coerce a government or its people in furtherance of political or social objectives. Further, to qualify as cyberterrorism, an attack should result in violence against persons or property, or at least cause enough harm to generate fear. Attacks that lead to death or bodily injury, explosions, or severe economic loss would be examples. Serious attacks against critical infrastructures could be acts of cyberterrorism, depending on their impact. Cybercrimes are increasing every moment. The momentous growth of the Cyberworld posed the threat of Cyber terrorism. Cyber-attacks tend to depict lethal, and non-lethal psychological well-being, public confidence & political attitudes. Generally, it is considered that Cyber terrorism affects only the national security system. But infect- it also affects their psyche & cognition. Cyber terrorists expanded the growth of Cyber-attacks, which has dramatically increased in the past few years. It has caused mass destruction & damage to nuclear facilities & critical command & control systems. Cyber experts are working to strengthen more and more capacity to restrain Cyber-attacks over Govt. systems, defence websites, financial and banking systems, and most importantly nuclear facilities. Solutions aren’t easy and they’re not pretty. The market is not going to fix this unaided. Security is a hard-to-evaluate feature against a

possible future threat, and consumers have long rewarded companies that provide easy-to-compare features and a quick time-to-market at its expense. I know this all sounds politically impossible right now, but we simply cannot live in a future where everything—from the things we own to our nation’s infrastructure—can be held for ransom by criminals again and again. In Conclusion, this paper puts together the challenges faced in real life and emphasizes existing literature, developing a perspective on the area and evaluating trends, thus effectively addressing potential future threats.

Opticarevision: Innovating Diabetic Retinopathy Management Using Machine Learning Algorithms

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Diabetic retinopathy is a diabetes-related complication that affects the blood vessels in the retina, the light-sensitive tissue at the back of the eye. Diabetic retinopathy (DR) is a sight-threatening complication of diabetes mellitus, impacting the retina and leading to vision impairment. This abstract encapsulates the essence of "Opti Care Vision," a project devoted to revolutionizing DR management. Opti Care Vision embraces innovative diagnostic tools, artificial intelligence, and tailored treatment approaches to augment early detection, monitoring, and intervention for diabetic retinopathy. By synergizing cutting-edge technologies, the project aspires to elevate patient outcomes, mitigate the burden of vision loss, and contribute to the contemporary evolution of diabetic retinopathy management within the healthcare landscape. The integration of advanced diagnostics enables precise and timely identification of retinal changes, while artificial intelligence facilitates nuanced analysis for improved prognostication. Personalized treatment strategies address the unique needs of individuals, fostering a holistic and patient-centric approach. Opti Care Vision envisions a future where proactive and individualized interventions transform the management paradigm of diabetic retinopathy, ultimately enhancing the quality of life for those affected by this debilitating condition.

Artificial Intelligence and Its Tools

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Artificial intelligence is the simulation of human intelligence processed by the machine especially computer systems. Specific applications include expert systems, natural language processing etc. AI is the component of technology that also includes the technologies like machine learning, deep learning. AI requires the foundation of specialized hardware and software for training the machines by the use of the algorithms. There are a number of tools that use artificial intelligence that makes the work easier for students, employees etc. The AI tools include ChatGPT4, Google Bard, Chatsonic, Midjourney, DALL-E3, Slides AI, Allie AI, Hubspot free AI Content writer tool, etc.

Face Attendance

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The development of a face recognition attendance system in an Android application represents a significant technological advancement in the way attendance is recorded and managed. This system leverages cutting-edge facial recognition technology to offer a secure, efficient, and contactless method for marking attendance, making it particularly relevant in scenarios where traditional methods are cumbersome or where hygiene concerns are paramount. The core of the application is built around a sophisticated algorithm capable of accurately identifying individuals from facial features captured via the device's camera. Upon registration, users' facial data are securely stored in a database, against which attendance entries are verified. The application is designed to quickly and accurately process facial data, even in varying lighting conditions or when minor facial changes occur, ensuring a high level of reliability and user convenience. Key functionalities include real-time attendance tracking, automated report generation, and the ability to handle a large database of faces, making it suitable for educational institutions, workplaces, and events. The system also features a user-friendly interface that allows for easy navigation and operation by administrators and users alike. Privacy and data security are paramount, with robust encryption and compliance with data protection regulations to safeguard personal information. This Android application not only streamlines the attendance management process but also offers a modern solution that aligns with the growing need for digital transformation in administrative processes. It represents a shift towards more interactive and secure methods of attendance recording, providing a blend of convenience, efficiency, and reliability. The implementation of such a system can significantly reduce the time and resources spent on manual attendance tracking, minimize errors, and provide valuable insights through data analytics, thereby enhancing the overall management efficiency and security of institutions and organizations.

Remote Health Monitoring - Using Fog Computing

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The healthcare industry faces the challenge of providing adequate monitoring and care for elderly or chronically ill patients who wish to avoid prolonged hospital stays. Current monitoring systems cannot often efficiently collect and analyze vital signs of interest in real time, leading to potential delays in critical interventions. Despite advancements in healthcare technology, a critical need exists to enhance the speed and efficiency of medical services for the general public. To address this issue, a novel fog computing-based platform is proposed for healthcare monitoring. This platform aims to leverage the Internet of Things, (IoT) driven fog computing is being developed to speed up the services for the general public and save billions of lives by enabling real-time monitoring of patients' vital signs using wearable devices embedded with sensors. The proposed system monitors the patient's body temperature, heart rate, and blood pressure values using sensors and notifies the doctors or caregivers in real time if there are any contradictions in the normal threshold value using machine learning algorithms. The notification can also be set for the patients to alert them about the periodical medications or diet to be maintained by the patients. The cloud layer stores the big data in the cloud for future reference for the hospitals and the researchers.

Facial Expression-Based Music Player With Adaptive Emotion Detection And Gesture Controls

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This project introduces a novel Facial Expression-Based Music Player that leverages real-time facial expression analysis to create personalized playlists based on the user's emotional state. The system employs a camera to capture facial expressions, employing advanced machine learning algorithms to classify emotions accurately. Building upon this foundation, the project aims to enhance the user experience by introducing additional features such as adaptive emotion detection, gesture controls, and personalized recommendations. The system's core functionality involves continuously analyzing facial expressions to determine the user's emotional state and dynamically adjusting the music playlist accordingly. The proposed system goes beyond conventional emotion-based music players by incorporating adaptive learning, allowing the algorithm to refine its emotion detection capabilities over time based on user feedback and historical data. In addition to emotion-based playlist generation, the Facial Expression-Based Music Player implements gesture controls to provide users with an interactive and intuitive means of controlling their music experience. For instance, the system responds to eye movements, allowing users to increase or decrease volume by blinking the right or left eye, respectively. Moreover, it introduces innovative controls like changing tracks by opening only the right eye or rewinding songs by opening only the left eye. To further enhance the user experience, the system integrates personalized recommendations based on historical emotional data. Machine learning algorithms analyze the user's emotional patterns over time to suggest songs that align with their preferences and moods. The implementation also considers adaptive learning, ensuring that the emotion detection model continually evolves to better understand and respond to individual users. The project goes beyond facial expression analysis by incorporating additional features like voice commands, interactive visualizations, and social media integration. Voice commands enable hands-free control of the music player, while interactive visualizations provide a captivating display that responds to the user's emotional state and the music being played. Social media integration allows users to share their current mood and playlists, fostering a sense of connection and music discovery. The Facial Expression-Based Music Player represents an innovative approach to personalized music experiences, seamlessly combining facial expression analysis, gesture controls, and adaptive learning. Through continuous refinement and user feedback, this system aims to set a new standard for emotion-aware music players, offering a unique and engaging way for users to interact with their music libraries.

LLM-Based Chatbot Providing Legal Advice

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Abstract—In an age where internet connectivity dictates access to legal counsel, the Offline Legal Advisor stands as a revolutionary solution. This paper explores the development and implementation of a Chabot powered by Large Language Models (LLMs), aiming to democratize legal information L access and bridge the digital divide. By amalgamating jurisdiction-specific legal data and advanced natural language processing techniques, the Offline Legal Advisor redefines legal assistance, ensuring contextually accurate guidance regardless of internet connectivity.

Analyzing And Detection of Malware Threats on Internet of Things Using Hybrid Deep Learning Model

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Integration of the Internet into the entities of the different domains of human society (such as smart homes, health care, smart grids, manufacturing processes, product supply chains, and environmental monitoring) is emerging as a new paradigm called the Internet of Things (IoT). However, the ubiquitous and wide-range IoT networks make them prone to cyber attacks. This research aims to investigate and mitigate the escalating threat of malware in Edge/Fog Computing environments, specifically originating from Internet of Things (IoT) devices. Leveraging the CICIDS 2017 dataset, we propose a two-fold approach employing Support Vector Machine (SVM) algorithm and a Hybrid Deep Learning model, combining Convolutional Neural Network (CNN) with Long Short-Term Memory (LSTM) networks. The SVM algorithm will provide a robust baseline for detecting known malware patterns, while the CNN-LSTM hybrid model will enhance the system's capability to identify complex, evolving threats. Our study seeks to contribute to the development of advanced intrusion detection systems tailored for the unique challenges posed by Edge/Fog Computing, ensuring the security and integrity of IoT-driven ecosystems. The research outcomes are anticipated to shed light on effective strategies to safeguard critical infrastructures in the eraof pervasive IoT adoption.

BLUE EYE TECHNOLOGY

JAYANI.C.Y,
ADHIYAMAAN COLLEGE OF ENGINEERING,

Blue technology is a ground breaking technology that enables human to interact with machines using just their eyes. This technology is based on the concept of biometric recognition . Which uses the human eye to identify and authenticate users. The blue eyes technology utilizes cameras ,image processing algorithms and software recognize and track eye movements. The blue eye technology is a revolutionary computer vision technology that enables human to interact with computers and other devices using just their eyes.

This technology identifies human emotions using image processing techniques by extracting eye portion from the captured image and compare it with the stored image in the database

AUGMENTED AND VIRTUAL REALITY

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Augmented Reality (AR) is a perfect blend of the digital world and the physical elements to create an artificial environment. Augmented reality can be used to increase user knowledge and information. AR technology helps to display score overlays on telecasted sports games and pop out 3D photos, text messages, and emails. Virtual Reality (VR) is a computer-generated simulation of an alternate world or reality. It is used in 3D movies and video games. Virtual reality is an experiment with an artificial environment. Also helps us to create a realistic world so that the user can explore the world. This paper discusses the technology and needs of these devices in our upcoming future.

Unveiling the Quantum Computing Landscape: Advancements, Challenges, and Emerging Trends in Quantum Communication and Machine Learning

Aditi Naraya Arpita CM Cemal Fathima Chandana R
AMC ENGINEERING COLLEGE, BENGALURU

In the realm of quantum optics, a fierce competition has ensued both in the corporate arena and academic corridors sowing to the meteoric rise of quantum computing. The scalability of current innovations in quantum computing has surged exponentially, with ubiquitous quantum machines boasting the capacity to support hundreds, if not thousands, of qubits. As formidable machines continue to emerge, this essay endeavours to demystify the realms of quantum communication and computing, particularly from the lens of machine learning. Beginning with an educational approach, it traverses pivotal milestones and the latest strides in quantum computing. The research herein delves into four cardinal challenges intrinsic to this virtual frontier, denoted as A, B, C, and D, representing quantum physics, networking, security, and algorithms, respectively. The discourse culminates in a comprehensive discussion encompassing key research domains and recent breakthroughs.

NETWORKS

Ramya.C Ragul.L Mamtha.U
PMC TECH

The introduction sets the stage by highlighting the ubiquitous presence of computer networks in our daily lives. It emphasizes the significance of understanding the underlying concepts of computer networks for both professionals and enthusiasts in the field of technology. This section delves into the foundational elements of computer networks, starting with the basics of data transmission, networking hardware components, and network topologies. It explains key concepts such as packets, protocols, and addressing schemes, laying the groundwork for deeper exploration.

Pothole Detection using Deep Learning

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Abstract - On daily basis, lot of potholes is encountered. Between 30%and 50% of the roads in big cities are used in a damaged state. Potholes pose a significant threat to road safety and infrastructure integrity, necessitating efficient detection methods. Our approach leverages the superior capabilities of YOLOv8 to accurately and efficiently identify potholes in real-time, allowing for prompt maintenance and enhancing road safety. The comprehensive dataset tailored for pothole detection, encompassing diverse urban scenarios and lighting conditions. Training the YOLOv8 model on this dataset yields a highly effective solution, addressing challenges such as imbalanced data and variations in pothole sizes. Our system demonstrates exceptional performance in both precision and recall during evaluations, showcasing its robustness and potential for practical implementation. Through extensive testing in real-world urban environments, we validate the model's ability to reliably detect potholes, providing a crucial tool for municipalities and transportation authorities in mitigating road hazards and optimizing maintenance efforts.

IOT Based Healthcare System For Paralysis Patient Using Machine Learning Algorithm

Harshitha S Bhavya R Adhya JJ Kavana HS
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Healthcare system for paralysis patient is a holistic assistive technology framework catering to the communication and health monitoring needs of individuals affected by paralysis. The system consists of two main components: the Body Tilt Communication System and Smart Support Gloves, both leveraging Arduino-based technologies. The Body Tilt Communication System utilizes an Arduino Uno, ADXL Accelerometer, and LCD screen to enable message display through subtle body movements, while the Smart Support Gloves, incorporating Flex Sensors and Arduino Nano, facilitate straightforward communication for those with hearing impairments. In addition to communication enhancements, the system integrates health monitoring capabilities through Pulse, SPO2, and LM35 Temperature sensors. These sensors, connected to a NodeMCU, enable real-time health data transmission to a central server. Machine learning algorithm(SVC) analyze this data, predicting potential health issues. In emergencies, alerts are automatically sent to registered caretakers via IoT, ensuring prompt response and care for paralyzed individuals. This amalgamation of Arduino-based technologies, IoT connectivity, and machine learning provides a versatile and comprehensive solution, addressing both communication barriers and health concerns for paralysis patients. The project strives to significantly improve the quality of life for individuals facing the complexities of paralysis by promoting efficient communication and proactive health management.

IOT Based Foot Pressure Monitoring System By Applying Machine Learning Alorithm

Neelaveni R Yashaswini S Rahul R Golabhavi Kavana HS
SRI SAIRAM COLLEGE OF ENGINEERING

Patients with diabetic for long term and poor glycaemia control often leads to peripheral neurovascular disorder. This neurovascular complication results in foot ulceration. 40% to 50% of diabetic patients are affected by foot ulceration. It is estimated that approximately 20% of hospital admissions among patients with diabetes mellitus are due to diabetic foot ulcer. So, early detection and prevention of foot ulcers is needed. This project describes the early detection of chronicity foot lesions in diabetic patients by monitoring their foot pressure and a hardware is set up to monitor the foot pressure in diabetic patients continuously with the help of flexi force sensor. In this method diagnosis of foot ulceration is done in an earlier stage thereby the further ulceration is prevented. The aim of this project is to develop low cost, lightweight foot pressure scanner and check its reliability and validity which can help to prevent foot ulceration. We accomplish this by placing pressure sensors in five or six pressure points in a sock which is then used by the patient. We have also made it user friendly by passing and storing these results to a server. It indicates the patient's current status and also can be accessed by the patient or the doctor through an application on any smartphone. AI based deep learning model is used to generate the foot pressure level graphically. Keywords – IoT, Foot pressure monitoring system, Machine learning algorithm, Data preprocessing, Accuracy, Classification

An Efficient Framework For Cancer Classification Using CT/MRI Images Using Deep Learning Models

SANDHYA S SOUMYA K TABASSUM A VIBISHA V
SRI SAIRAM COLLEGE OF ENGINEERING

Cancer stands as the second leading cause of death globally, underscoring the critical need for efficient detection methods. This research explores the application of Artificial Intelligence (AI), specifically deep learning models, to automate cancer detection and classification. Focusing on eight types of cancer, including lung, brain, breast, and cervical cancer, the study employs Convolutional Neural Networks (CNN) – specifically, pre-trained variants such as MobileNet, VGGNet, and DenseNet. Transfer learning is utilized to leverage knowledge acquired from the ImageNet dataset, enhancing the models' ability to discern diverse cancer cell types. To optimize model performance, Bayesian Optimization is employed for hyperparameter tuning, ensuring accuracy in classifying cancer images. The study acknowledges potential challenges arising from transfer learning, where models may struggle to classify datasets they were initially trained on. To address this, the researchers implement Learning without Forgetting (LwF), a technique that trains the network using only new task data while preserving its original abilities. Experimental results demonstrate the superiority of the proposed models based on transfer learning over current state-of-the-art techniques. Additionally, the study highlights the efficacy of LwF in accurately classifying both new datasets and those previously trained, showcasing its potential in advancing cancer detection through AI-based approaches.

UNLEASHING POWER: THE EVOLUTION OF PROCESSORS

Varshitha Dhandapani Divya R
Er Perumal Manimekalai College of Engineering

The paper titled “Unleashing Power:Navigating the Evolution of Processors” explores the intricate landscape of processors, dissecting their fundamental roles, classifications, and evolution. The study delves into the diverse types of processors, elucidating the distinctive attributes of micro-processors, micro- controllers, DSP’s (Digital Signal Processors), and FPGA’s (Field-Programmable Gate Arrays). Each processor type is dissected to unveil its specific applications, strengths, and optimal use cases within the realm of computing. A significant portion of the paper is dedicated to an in-depth examination of two pivotal processors-Snapdragon, Raspberry Pi. The snapdragon processor, engineered by Qualcomm, stands as a quintessential example of cutting-edge mobile processing technology,with its advanced features, multi-core architecture, and integrated functionalities such as 5G connectivity. Concurrently, the Raspberry Pi, a paradigm of single-board computing, represents a versatile and affordable hands-on experimentation and learning across various fields. Throughout the exploration, the paper addresses the dynamic nature of processor technology, highlighting trends,advancements, and the perpetual quest for enhanced performance and efficiency. By deciphering the intricacies of processors and exemplifying their real-world applications, this paper aims to provide a comprehensive understanding of the evolving landscape of processors, empowering readers to navigate and comprehend the remarkable journey of these essential computing components.

Internet of Things (IoT)

Anu baskar
PMC Tech

The Internet of Things (IoT) is Abstract a paradigm that interconnects a vast network of physical devices, vehicles, appliances, and other items embedded with sensors, software, and connectivity, enabling them to collect, exchange, and act upon data. This interconnected ecosystem facilitates seamless communication between devices and humans, presenting unprecedented opportunities for automation, optimization, and innovation across various domains. By harnessing IoT technologies, organizations can enhance efficiency, improve decision-making, and create more connected and intelligent systems, ultimately shaping the future of smart environments and ushering in a new era of interconnected experiences. Overall, IoT is driving innovation and efficiency across industries, creating new opportunities for businesses and improving the quality of life for individuals. As IoT continues to evolve, addressing security, privacy, and interoperability challenges will be crucial to ensure its widespread adoption and success.

Certification Issuing And Verification Application

Yamini Meshram Tannya Gupta Pratik Mahadik Shreyaskar Sanskar
SRI SAIRAM COLLEGE OF ENGINEERING

Paper certificates, prevalent in education and employment, face forgery and verification challenges. This proposal tackles this by introducing a blockchain- based digital certificate system. By leveraging the blockchain's unalterable nature, it creates tamper-proof and verifiable digital certificates. Paper certificates are digitized, hashed, and stored on the blockchain. Linked QR codes and inquiry codes enable convenient verification via mobile app or website. This system empowers individuals, streamlines verification for institutions, and fosters trust and security in credentialmanagement.

Diabetic Retinopathy

Sunitha N Sujith singh Shruthi R Shreya S Kalal
SRI SAIRAM COLLEGE OF ENGINEERING

Drugs are a major problem in economic and many losses in worldwide. In this project, an video processing approach is proposed for identifying drugged eye based on convolutional neural network. According to the CNN algorithm, eye image details are taken by the existing packages from the front end used in this project. However, it can take a few moments. So, this proposed system can be used to identify drugged eyes quickly and automatically. The eye images dataset are taken from Kaggle. These images are taken as a training set for this drugged eye detection. This proposed approach is composed of the following main steps that getting input video, Video Preprocessing, identifying reddish places, highlight those affected places, Verifying training set, showing result. Few types of eyes like drugged socially may be missed to identify. This approach was tested according to drugged eye type and it's stages, such as drug consumed and not consumed. The algorithm was used for detecting the white area of eye present in given input. Images were provided for training, such as drugged eye images and normal eye images. Before the image processing, images were converted to color models, because of find out the most suitable color model for this approach. Local Binary Pattern was used for feature extraction and Support erosion method was used for creating the model. According to this approach, drugged eyes can be identified in the average accuracy of 95%.

Epileptic Seizure Prediction

Pruthvin K V Manoj A Pavan Kumar S R Pavan Reddy T
SRI SAIRAM COLLEGE OF ENGINEERING

The epileptic seizure prediction (ESP) method aims to timely forecast the occurrence of seizures, which is crucial to improving patients' quality of life. Many deep learning-based methods have been developed to tackle this issue and achieve significant progress in recent years. However, the "black-box" nature of deep learning models makes the clinician mistrust the prediction results, severely limiting its clinical application. For this purpose, in this study, we propose a self-interpretable deep learning model for patient-specific epileptic seizure prediction: Multi-Scale Prototypical Part Network (MSPPNet). This model attempts to measure the similarity between the inputs and prototypes (learned during training) as evidence to make final predictions, which could provide a transparent reasoning process and decision basis (e.g., significant prototypes for inputs and corresponding similarity score). Furthermore, we assign different sizes to the prototypes in latent space to capture the multi-scale features of EEG signals. To the best of our knowledge, this is the first study that develops a self-interpretable deep learning model for seizure prediction, other than the existing post hoc interpretation studies. Our proposed model is evaluated on two public epileptic EEG datasets (CHB-MIT: 16 patients with a total of 85 seizures, Kaggle: 5 dogs with a total of 42 seizures), with a sensitivity of 93.8% and a false prediction rate of 0.054/h in the CHB-MIT dataset and a sensitivity of 88.6% and a false prediction rate of 0.146/h in the Kaggle dataset, achieving the current state-of-the-art performance with self-interpretable evidence.

Real Time Gesture Recognition Using Machine Learning

Pavan Kalyan.N Harsha.J Dheeraj Yashwanth
SRI SAIRAM COLLEGE OF ENGINEERING

The deaf community in the world relies heavily on the Sign Language (SL) as a means of communication. But because so few people are fluent in SL, there is a communication gap between the hearing and deaf communities. The Sign Language Translator (SLT) in this paper employs MediaPipe and LSTM [Long Short Term Memory] to convert Sign Language (SL) to text and back again. The suggested approach first uses MediaPipe to extract hand movements and facial emotions from movies of SL signals. The LSTM model, which is trained using a sizable dataset of SL signs and their related text labels, is then fed these characteristics. The input feature sequence is processed by the LSTM model, which also creates the matching text labels. A dataset of SL signs and the text labels that go with them was gathered in order to train and test the proposed system. The outcomes demonstrate that the suggested approach performs extremely well when converting SL signs to text and vice versa. The system is useful for usage in real- life scenarios since it can recognise and translate many indications in succession. Overall, a bridge between the hearing and deaf communities in world can be created by the proposed Sign Language Translator system, enabling seamless inclusion and communication. By allowing them to interact with the hearing world more effectively, it has the potential to greatly raise the quality of life for the deaf people in the world.

Agrobox with smart agriculture in large and small scale

Sumanth
AMC Engineering college

Agriculture, the backbone of India's livelihood, has long been the foundation of our sustenance. There are many problems that we encounter in the agricultural field that may be solved by Technologies. Let's see some problems; Farmers won't have accurate data on moisture of Soil leads to Overwatering or under watering affecting Crops Growth. In Some Crops such as Wheat, Rice in which the temperature effect there Yields and even frost event occurs. High humidity in Air causes growth of mold and diseases in Plants. There are various causes where there is either Trespass or Animal Damaging yields. There is even the case in which even though we have the technologies we are not able to scale them into large scale farming as we have some problems when we try to implement smart irrigation and data collection in a very large field of crops such as internet connectivity , infrastructure ,location and data analytics. So we have made a device called Agrobox which acts as a data collection and smart irrigation device which has various sensors attached to it to take data from environment and is sent to the user through internet. Our project successfully aids farmers in managing soil moisture and monitoring essential agricultural aspects in small scale and large scale. It can help to autonomously waters crops based on soil requirements, promoting water conservation and adaptability to different crop needs and checking. To further enhance the system, integrating AI is essential If we take an example of a Paddy or Tea estates which plant crops on a large scale of average of 10 acres, then implementing smart irrigation becomes very difficult as the maximum range or WSN wireless sensor network can reach is about 100 meters . It is very costly to set up your own network tower near your crop field, which becomes very difficult and not cost effective as it needs maintenance and high power needs .So due to this it becomes hard for us to implement IOT in large crop fields. So since the sensors range is less and if you want the data in your vast area of crop field, we have made a technical approach for these by using the drones as a part of a decentralized mechanism where the Agrobox act as nodes and the drone acting as an internet gateway to successfully solve these problems.

Smart Classification of Obstructive Sleep Apnea Severity Level Using ML Algorithms

ANKITA MOHANTY GAYATHRI DEVI.K HARINI.R JYOTSHNA SINHA
SRI SAIRAM COLLEGE OF ENGINEERING

The intersection of machine learning (ML) techniques with the diagnosis of Obstructive Sleep Apnea (OSA) has ushered in a transformative era in sleep medicine, offering a potent arsenal for healthcare professionals. OSA, a prevalent sleep disorder fraught with potential health complications, demands early identification for effective intervention. ML's prowess lies in its ability to analyze a diverse array of data sources, including polysomnography (PSG) data, clinical information, and physiological signals. Polysomnography, a comprehensive sleep study, captures a spectrum of physiological parameters during sleep, enabling a holistic view of the patient's condition. Clinical information, encompassing demographics and medical history, adds contextual richness to the dataset, while physiological signals from various sensors provide additional layers of insight. The ML process unfolds in several key stages. Data preprocessing is paramount, involving the meticulous cleaning and formatting of raw data to ensure its quality and relevance. Feature selection follows, wherein the ML model identifies and focuses on the most pertinent variables, enhancing the efficiency of subsequent analyses. The crux lies in model training, where the algorithm learns from labeled datasets, refining its ability to recognize intricate patterns associated with OSA. This iterative process empowers the ML model to make increasingly accurate predictions. The implications of incorporating ML into OSA diagnosis are profound. The technology's capacity to discern complex patterns within datasets, which may elude traditional diagnostic methods, significantly enhances diagnostic accuracy. The result is a more precise and timely identification of OSA, paving the way for proactive and personalized interventions. Ultimately, this integration aims to optimize patient care by not only streamlining the diagnostic process but also by fostering a more nuanced understanding of OSA, thereby enabling healthcare professionals to tailor interventions to individual patient needs. As sleep medicine continues to evolve, the marriage of ML and OSA diagnosis holds promise for revolutionizing patient outcomes and the overall landscape of sleep disorder management.

Recommendation System in Streaming Data Using Deep Learning

Suhas B Sanjai G Noorian Vinay HS
SRI SAIRAM COLLEGE OF ENGINEERING

In the rapidly evolving landscape of digital content consumption, the demand for real-time personalized recommendations has become paramount. This project explores the intersection of cutting-edge technology, recommender systems, and streaming data, with a focus on leveraging artificial intelligence (AI) to address the challenges posed by dynamic, continuously evolving content. This project focuses on building a movie recommendation system using deep learning techniques. The framework employed for this task is primarily Keras, a high-level neural networks API running on top of TensorFlow. The project leverages collaborative filtering methods, specifically user-based and item-based collaborative filtering, to provide personalized movie recommendations to users. The recommendation system is implemented using a basic factorization model, utilizing embeddings and neural networks to capture intricate patterns in user preferences. The model is trained on a dataset containing user ratings for various movies, allowing it to learn latent features that represent user and movie interactions. The collaborative filtering techniques involve computing correlations between users or items based on their historical interactions, and predictions are made by considering similar users' or items' preferences. The project also includes an exploration of the dataset, visualizations, and an evaluation of the model's performance using metrics such as Mean Squared Error (MSE).

Number Plate Detection And Speed Monitoring System Using Machine Learning Techniques

**MAHESH AS SARATH KUMAR V SRINIVASAN T SUNDAR G
SRI SAIRAM COLLEGE OF ENGINEERING**

This project presents an innovative integration of Automatic Number Plate Recognition (ANPR) technology, TensorFlow-powered Number Plate Detection, and real-time Speed Monitoring with automatic alert capabilities. The proposed Digital Image Processing-based prototype leverages cutting-edge technologies, including pytesseract and the Tesseract engine, to enhance road safety and contribute to the evolution of transportation systems. The ANPR component excels in image acquisition, pre-processing for enhancement, license plate segmentation, and Optical Character Recognition (OCR), providing efficient conversion of stored numbers into text form. Simultaneously, the system incorporates a robust Speed Monitoring feature driven by computer vision algorithms. Real-time tracking of vehicle speeds enables automatic alerts in instances of speeding, with relevant authorities promptly notified via email. This comprehensive approach addresses challenges faced by security forces in enforcing traffic rules and enables efficient capture and logging of vehicles violating regulations. Additionally, the system finds application in parking lots, automating the process of capturing vehicle information and logging it into databases or the cloud. By automating these critical processes, the system enhances efficiency, reduces manual efforts on busy days, and proves indispensable for law enforcement and traffic management. The versatility of the ANPR system, coupled with real-time Speed Monitoring and email alert functionalities, marks a significant step towards a technologically advanced and automated future in road safety and transportation.

AI based drugged eye detection using deep convolutional neural network approach for video processing

**Akshaya a Anusha a patil Bhavana p Chaithra c
SRI SAIRAM COLLEGE OF ENGINEERING**

Drugs are a major problem in economic and many losses in worldwide. In this project, an video processing approach is proposed for identifying drugged eye based on convolutional neural network. According to the CNN algorithm, eye image details are taken by the existing packages from the front end used in this project. However, it can take a few moments. So, this proposed system can be used to identify drugged eyes quickly and automatically. The eye images dataset are taken from Kaggle. These images are taken as a training set for this drugged eye detection. This proposed approach is composed of the following main steps that getting input video, Video Preprocessing, identifying reddish places, highlight those affected places, Verifying training set, showing result. Few types of eyes like drugged socially may be missed to identify. This approach was tested according to drugged eye type and it's stages, such as drug consumed and not consumed. The algorithm was used for detecting the white area of eye present in given input. Images were provided for training, such as drugged eye images and normal eye images. Before the image processing, images were converted to color models, because of find out the most suitable color model for this approach. Local Binary Pattern was used for feature extraction and Support erosion method was used for creating the model. According to this approach, drugged eyes can be identified in the average accuracy of 95%.

Music Reading Made Easy for Beginners Using AI

Sudhesh Hegde, V Tushar

AMC ENGINEERING COLLEGE, BENGALURU

Music is easy until you are just listening to it, but when it comes to understanding and reading it, the difficulty bar raises. To read and comprehend sheet music is hard for absolute beginners which makes the beginning of learning music rough and motivates people to quit instead of continuing. In this paper we will explore a new way to read the music, a simpler and effective way for beginners to start with while preserving all the necessary regulations of the sheet music. We will also explore a tool built with convolution neural networks to modify the note symbols in the sheet music into chromatic notes represented in alphabets respectively.

EDGE COMPUTING:BRIDGING THE GAP BETWEEN CLOUD AND IOT

KAVANA B S, PREM H ,KAVANA R, LIKHITH

AMC ENGINEERING COLLEGE, BENGALURU

Edge computing is the primary interface among the cloud and Internet of Things (IoT) gadgets, remodeling how data is processed and controlled. In this situation, the computation delays and delays in this appropriate selection have been prevented with the aid of stopping the boundaries in the traditional cloud, the computation works via the computation of the computation, of the net network, laptop vulnerability real time or the actual arrival time, that's a unique case of the unique scope of the responsibility. Van is, as IOT equipments self sufficient vehicles, this is not the way It not most effective reduces latency but additionally optimizes bandwidth usage via sending simplest relevant or processed records to the vital cloud, riding all operations excessive

The main gain of part computing is its potential to enhance reliability, preserving gadgets walking even though connectivity to the central cloud breaks Important choices may be made regionally, ensuring that they may retain to operate under conditions in which routine operations are paramount. In addition, side computing solves privateness worries with the aid of processing touchy facts locally, accordingly putting off the need to move such records to the cloud This local implementation also facilitates boom protection by reducing the assault surface and capability statistics publicity in transit. Flexibility and scalability are essential traits of an side computing structure, allowing computing sources to be deployed wherein they're most wanted This flexibility is in particular beneficial in dynamic environments with numerous workloads. Edge computing unearths packages in plenty of industries such as healthcare, manufacturing, smart towns and retail. Advancing Privacy and Confidentiality in the Digital Healthcare Era: The Image Encryption Solution The rapid digitization of healthcare services has led to an exponential growth in the generation and exchange of medical images. Ensuring the confidentiality and integrity of these sensitive E- Healthcare images is paramount to safeguard patient privacy and comply with regulatory standards. This project introduces a robust solution for securing and sharing E-Healthcare images by implementing an efficient image encryption model within the AWS Cloud environment. The proposed system leverages state-of-the-art encryption algorithms to protect E-Healthcare images during storage and transmission. We employ advanced cryptographic techniques to ensure that only authorized personnel can access and decrypt the images, mitigating the risk of unauthorized data breaches and ensuring compliance with stringent healthcare data protection regulations. Furthermore, our model is seamlessly integrated into the AWS Cloud infrastructure, harnessing its scalability, flexibility, and reliability. The use of AWS services such as Amazon S3 for storage and providing a secure and accessible platform for healthcare professionals. By addressing the critical aspects of image security, accessibility, and compliance within the AWS Cloud, this project aims to contribute to the advancement of secure E-Healthcare image sharing, fostering improved collaboration

Scam Call Detection Using NLP And Naive Bayes Classifier

Sunidhi Gaytri
Alliance University

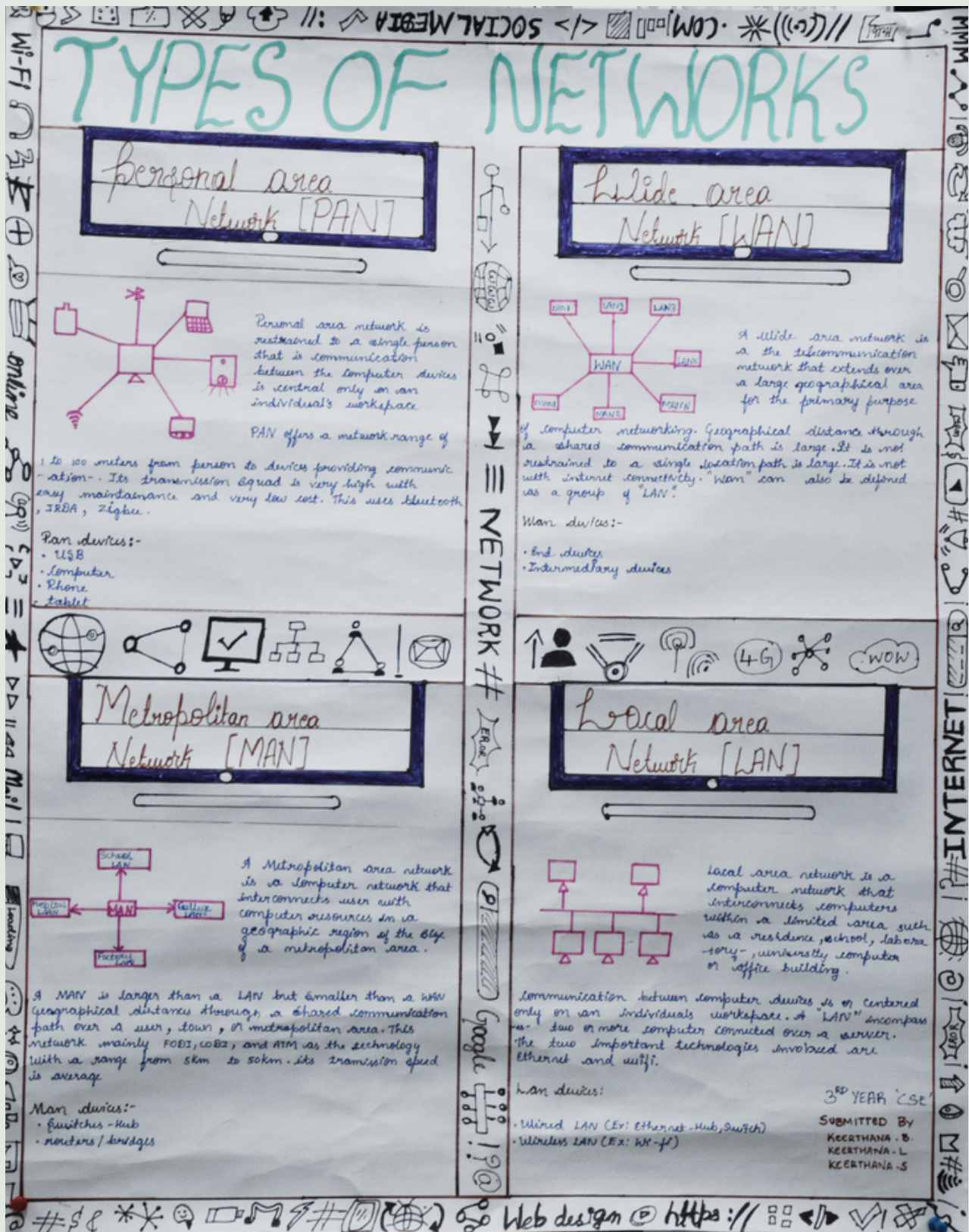
Phone scams are rising day by day, scammers are targeting people through phone calls for malicious purposes. People are falling for offers from scammers making them victims and disclosing their personal identifications leaving them vulnerable to exploitation. The need for effective detection methods has become more important. In this project, we propose an effective method for scam call detection with the help of machine learning algorithm Naïve Bayes classifier and using speech-to-text libraries. By converting speech to text, our system analyzes conversations in real-time, identifying suspicious phrases and patterns which indicate scam attempts, such as requesting for sensitive information like passwords, OTP, and credit card details. If the phrases are detected as suspicious, alert prompt will be generated and sent to the user with a pop-up message, empowering them to make informed decisions about whether to trust and proceed with the call or not. If the user doesn't trust the call then certain actions will be taken such as immediately cut the call, block the number and further report the number. Through continuous adaptation and learning, our approach aims to effectively address scam calls, enhancing user security and confidence in telephone communications.

AI ENABLED BUS ENQUIRY SYSTEM

Hemanth R Keerthipati Siddarth Varma Lakshay S Krupa N
AMC Engineering College

In this metropolitan era transportation is more rapid than past decades. But metro is mode of transport for commuting in major cities, where we cannot reach our desired destinations in proper. Bus is the major transport used by most population alike students, Senior citizens depending on the fare and their convenience. But waiting at bus stops and slaying our valuable time without prior information about bus transport system crafts a crucial problem for the passengers. This paper gives the complete solution for the problems faced by all category of passengers. In particular people who are specially disabled can make use of this handsfree system service efficiently. Solving this problem gives the complete information of the transport system, so that passengers can schedule their daily activities and perform all their deeds without missing them.

TECHNICAL ART

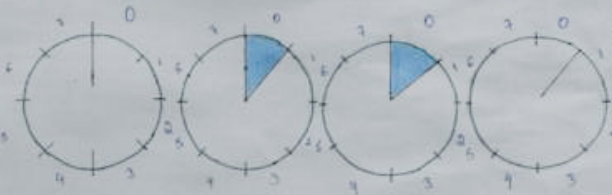


*Keerthana B-3rd yr-CSE
*Keerthana L-3rd yr-CSE
*Keerthana S-3rd yr-CSE

ONE BIT SLIDING WINDOW PROTOCOL

In One-bit Sliding Window Protocol, the sender and receiver window size is 1, it sends 1 frame at a time, buffers the sent frame and waits for acknowledgment from receiver. Receiver on receiving the expected frame slides its window and sends acknowledgment. Upon receiving an acknowledgment, the sender advances its window, it sends a new frame with next sequence number. If the timer times out before receiving the acknowledgment, then it resends the buffered frame.

Sender



Receiver



A SLIDING WINDOW OF SIZE 1

- State of sender and receiver initially, receiver is expecting frame with sequence number 0.
- Sender sends sequence number 0 and buffers it.
- Receiver receives sequence number 0 sends acknowledgment and advances its window.
- Sender receives its acknowledgment for frame 0 and advances its window.

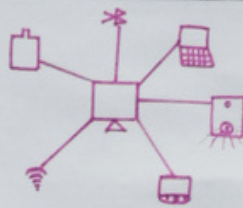
3rd YEAR CSE
SUBMITTED BY
BINDUSHREE R
CHANDANA A
CHANNAVEERA



*Bindushree R -3rd yr-CSE
*Chandana A -3rd yr-CSE
*Channa Veera -3rd yr-CSE

TYPES OF NETWORKS

Personal area Network [PAN]

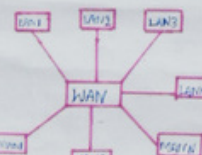


Personal area network is restricted to a single person that is communication between the computer devices is central only in an individual's workspace.

PAN offers a network range of 1 to 100 meters from person to device providing communication. Its transmission speed is very high with easy maintenance and very low cost. This uses Bluetooth, IRDA, Zigbee.

Pan devices:-
• USB
• Computer
• Phone
• Tablet

Wide area Network [WAN]



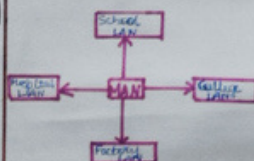
A wide area network is a telecommunication network that extends over a large geographical area for the primary purpose of computer networking. Geographical distance through a shared communication path is large. It is not restricted to a single location path is large. It is not with internet connectivity. "Wan" can also be defined as a group of "LAN".

of computer networking. Geographical distance through a shared communication path is large. It is not restricted to a single location path is large. It is not with internet connectivity. "Wan" can also be defined as a group of "LAN".

Wan devices:-

- End devices
- Intermediate devices

Metropolitan area Network [MAN]

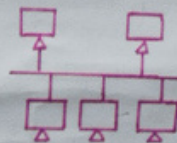


A Metropolitan area network is a computer network that interconnects users with computer resources in a geographic region of the size of a metropolitan area.

A MAN is larger than a LAN but smaller than a WAN. Geographical distance through a shared communication path over a user, town, or metropolitan area. This network mainly FDDI, COBOL, and ATM as the technology with a range from 5km to 50km. Its transmission speed is average.

Man devices:-
• Switches-Hub
• Routers/Bridges

Local area Network [LAN]



Local area network is a computer network that interconnects computers within a limited area such as a residence, school, laboratory, university, computer, or office building.

Communication between computer devices is centered only on an individual's workspace. A "LAN" encompasses two or more computers connected over a server. The two important technologies involved are Ethernet and wifi.

lan devices:

- Wired LAN (Ex: Ethernet-Hub, Switch)
- Wireless LAN (Ex: Wi-Fi)

3RD YEAR CSE

SUBMITTED BY
KEERTHANA . B.
KEERTHANA . L.
KEERTHANA . S

NETWORK #

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*Keerthana L-3rd yr-CSE

*Keerthana S-3rd yr-CSE

ARTS

C M Tejashree -2rd yr-CSE

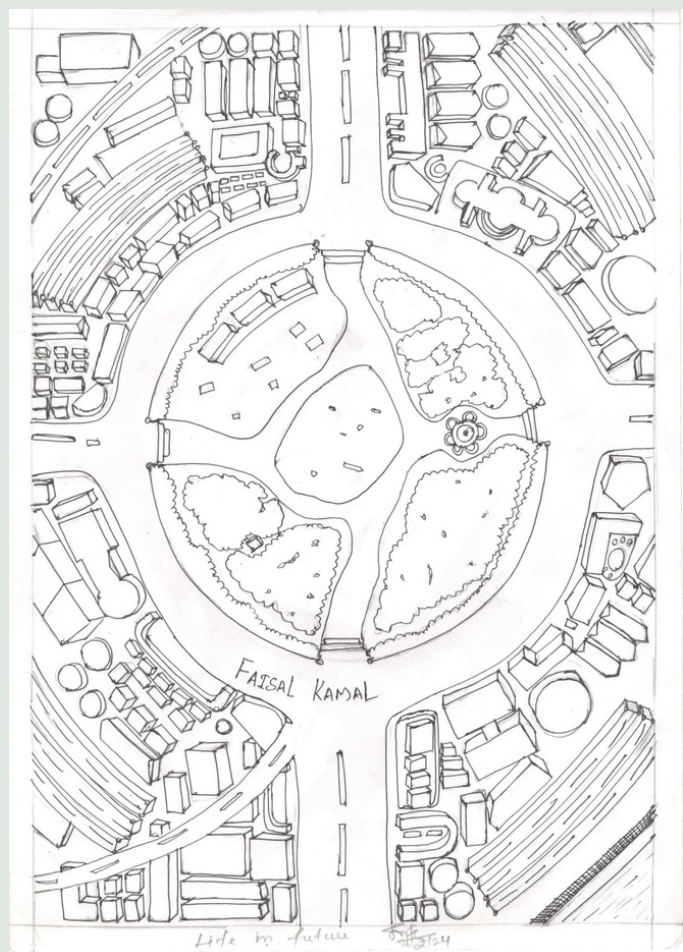


Ravi Prakash-2rd yr-CSE



Parul Mishra -3rd yr -CSE

Faisal Kamalrd -CSE

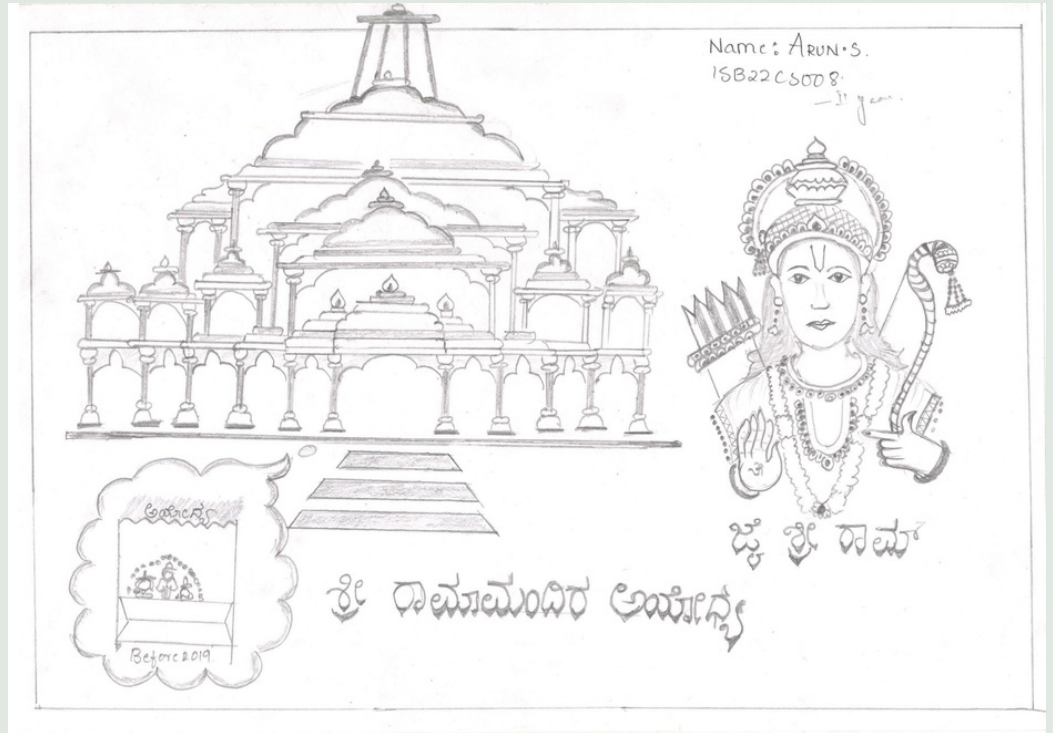




Radhika Uppar -2nd yr-CSE



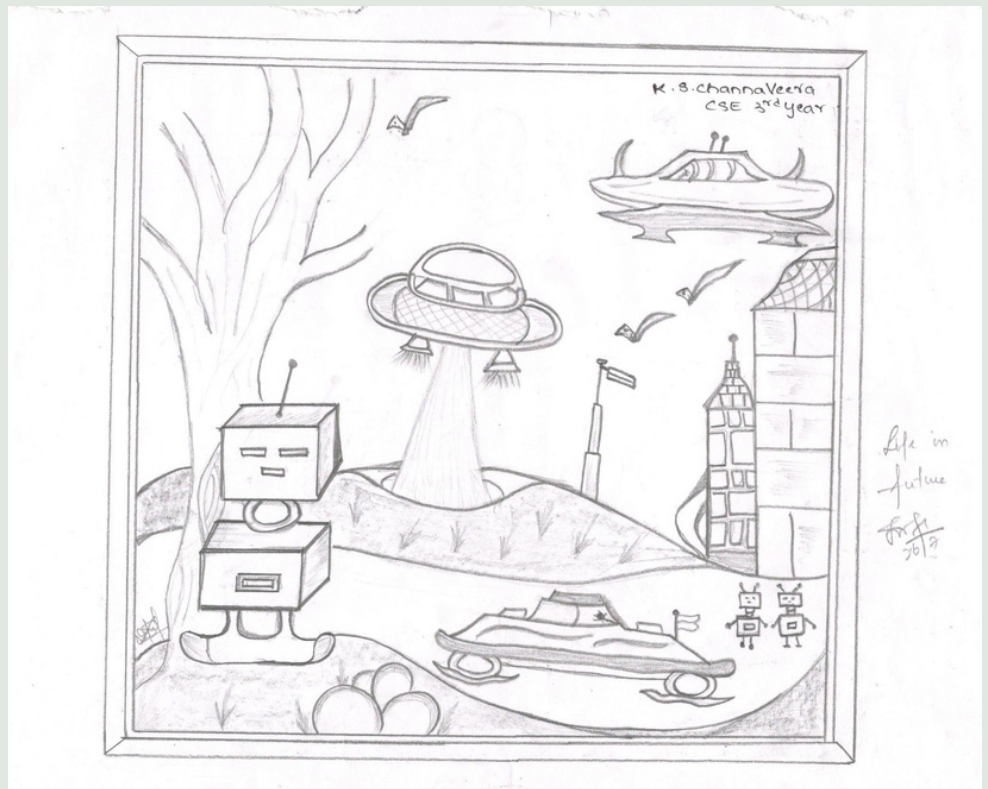
Sahana-2nd yr-CSE



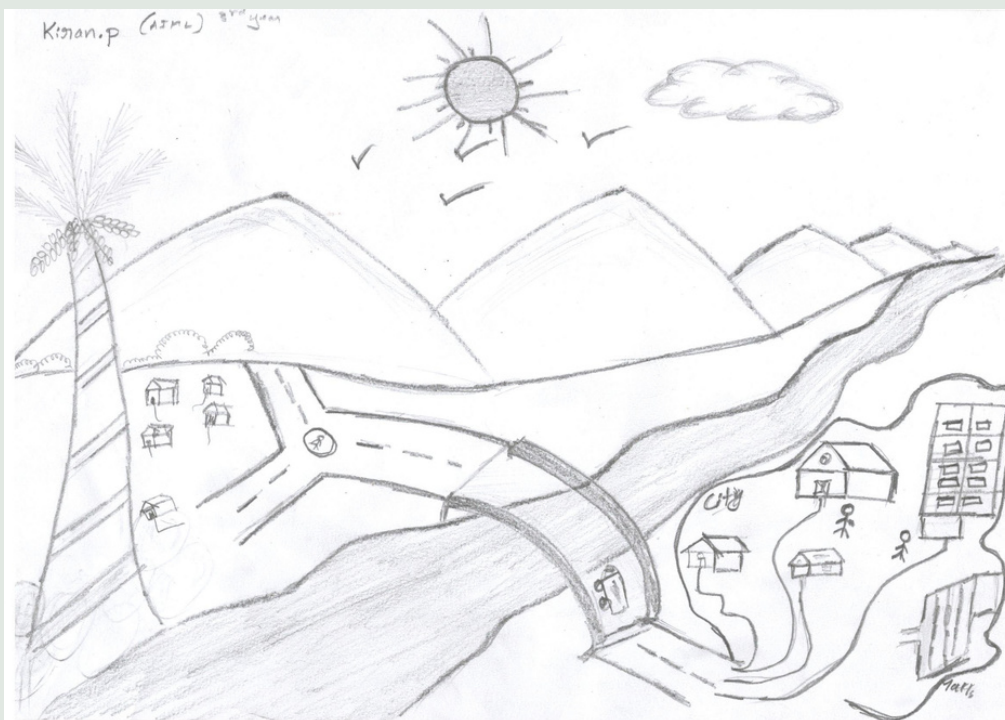
Arun-2rd yr-CSE



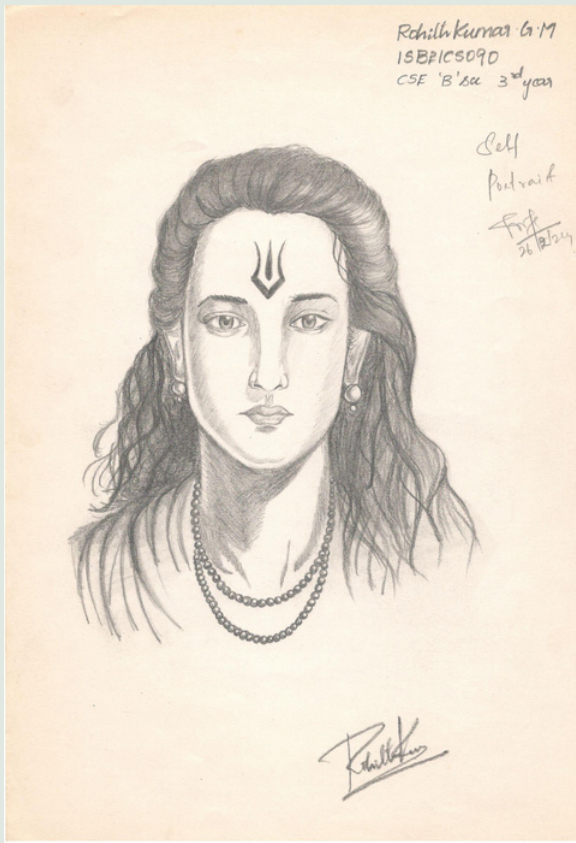
keval -3rd yr-CSE



Channavera -3rd yr-CSE

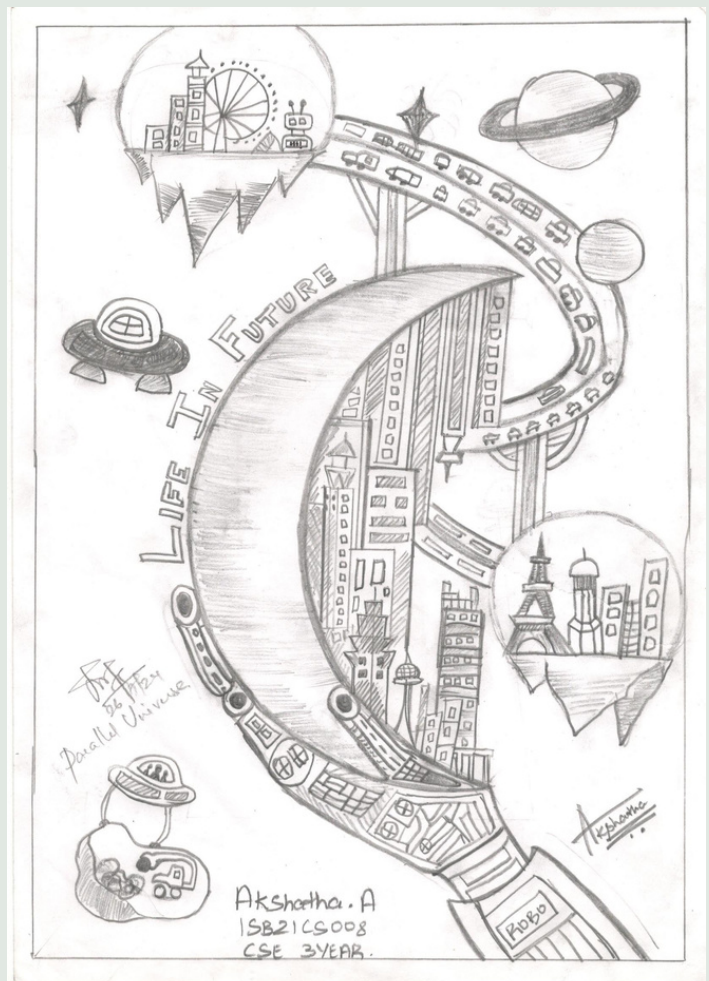


Kiran -3rd yr-CSE

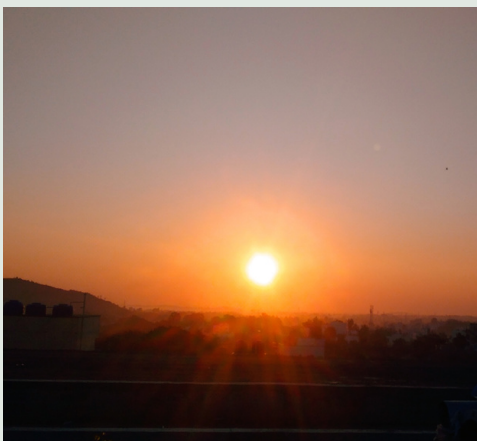
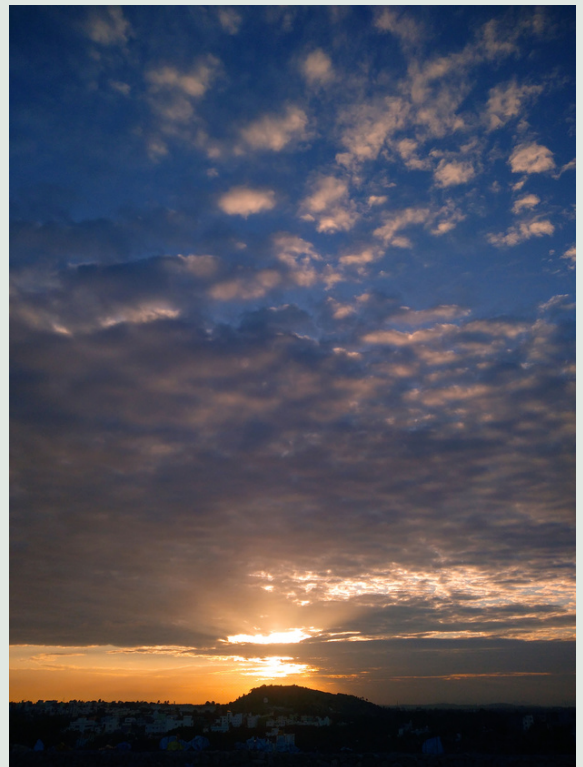


Rohith Kumar -3rd yr-CSE

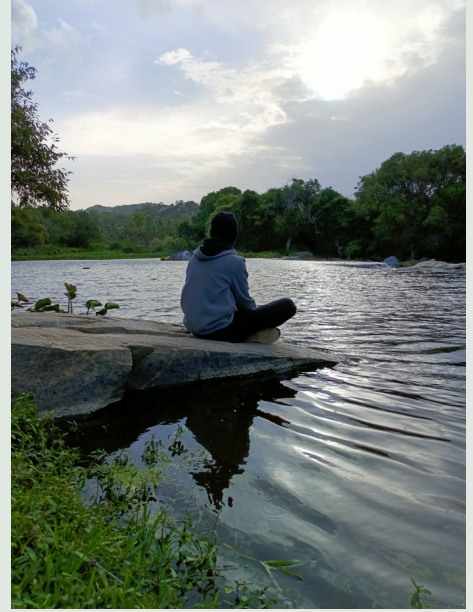
Akshatha-3rd yr-CSE



PHOTOGRAPHY



GuruPrasath M-2rd yr-CSE



Ayush Chand D-2rd yr-CSE

ನಮ್ಮ ಯೋಧರು

ದೇಶವನ್ನು ಕಾಯುತಾರೆ ನಮ್ಮ ಯೋಧರು
ವೀರಮರಣ ಹೊಂದುತಾರೆ ಮಹಾವೀರರು
ಚಳಿ-ಗಾಳಿಯನ್ನು ಲೆಕ್ಕಿಸದೆ ಕಾಯುತಾರೆ ದೇಶವ
ನಾವು ಅವರಿಗೆ ಕೊಡಬೇಕು ಗೌರವ

ದೇಶವ ಕಾಯುವ ಸೈನಿಕ ನೀನು
ಭಾರತಾಂಬೆಯ ವೀರ ಪುತ್ರನು
ನಿನ್ನಯ ಆಸೆಯ ಎಲ್ಲವ ಬಿಟ್ಟು
ಕಾಯುವೆ ಪ್ರಾಣವ ಪಣಕ್ಕೆ ಇಟ್ಟು

ಗಡಿಯಲಿ ನಿಂತ ನಿರ್ವಾಹಿಯು ನೀನು
ನಿನ್ನಯ ತ್ಯಾಗಕ್ಕೆ ಸಾಟಿಯು ಏನು?
ನಿನ್ನಿಂದಲೇ ಈ ಶಾಂತಿಯ ಜೀವನ
ನಿನ್ನಯ ಸೇವೆಗೆ ಅನಂತ ನಮನ

Deekshak SK

1SB21CS024

3rd Year

CSE – 'A'

MEME

$$\text{Study Well} = \text{Not Failure} \dots\dots\dots(1)$$

$$\text{Not Study Well} = \text{Failure} \dots\dots\dots (2)$$

$$(1) + (2) \quad \text{Study Well} + \text{Not Study Well} = \text{Not Failure} + \text{Failure} \dots\dots(3)$$

In the equation (3) take study well , failure as a common from LHS , RHS respectively

So, (3) will become

$$\text{Study Well}(1+\text{Not}) = \text{Failure} (1+\text{Not}) \dots\dots\dots (4)$$

÷ The above equation by $(1+\text{Not})$ will get

$$\text{Study Well} = \text{Failure} \dots\dots\dots(5)$$

According to the above equation, we won't study. We will enjoy the life to get success in our life

By
Prof. Reji Thomas
Prof.P.Ramkumar

ACHIEVEMENTS





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ARFATHULLA SHARIFF
CGPA: 8.975



AISHWARYAA R
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K VARSHITH
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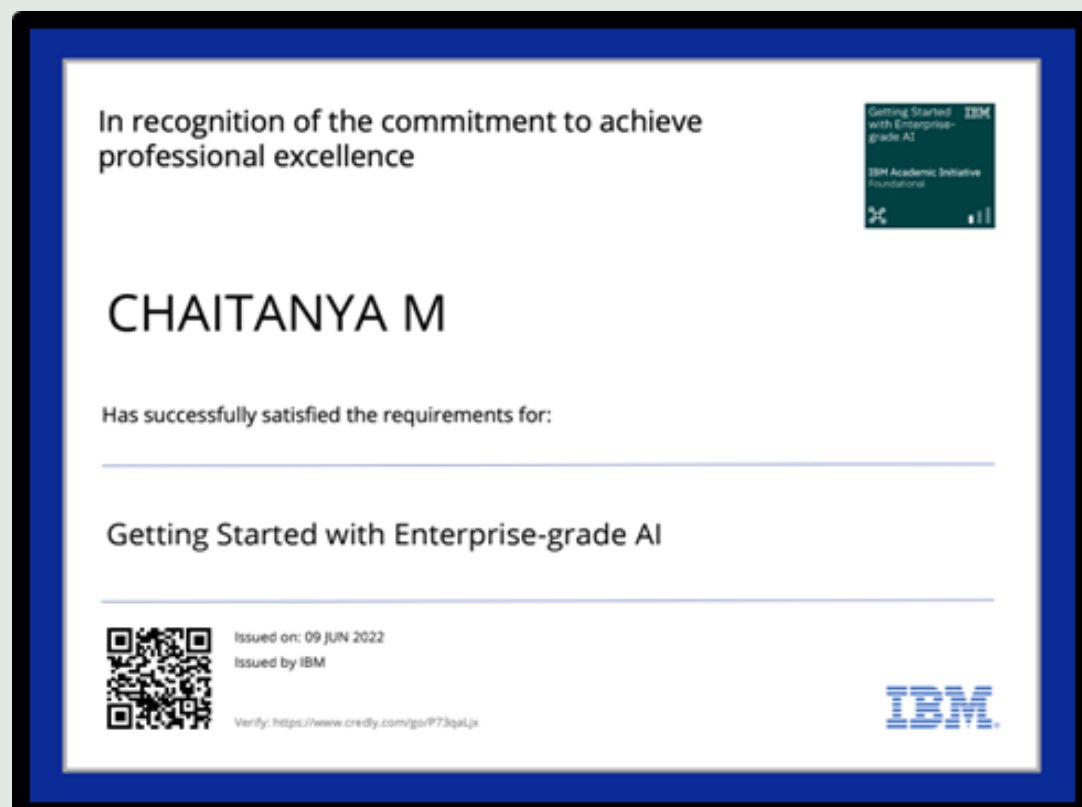


RAVI N
CGPA: 8.950



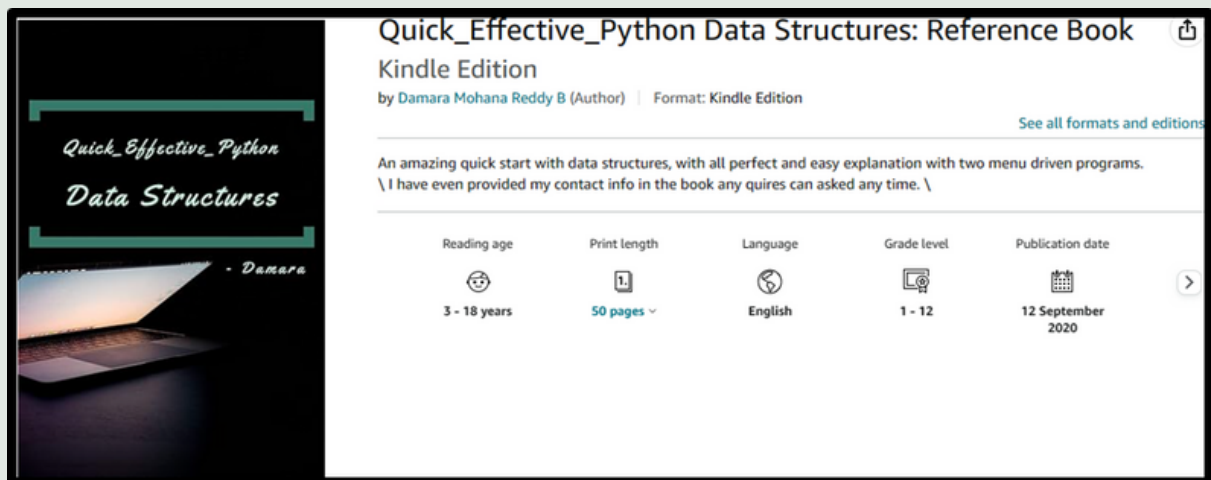
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CGPA: 8.950







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	YAMINI MESHAM (SLAS256315) 3rd Year COMPUTER SCIENCE AND ENGINEERING SRI SAIRAM COLLEGE OF ENGINEERING (1-4784471)	Date : 13-01-2023 Type : Self-Assessment Overall Rating ★★★★★
★★★★★ Excellent ★★★★☆ Very Good ★★★☆☆ Good		
Theory Of Computation ★★★★★ - You can be worth the best engineer in the group. - You can be a great engineer to go with acting skills.		





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