



ROHINI

COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University,
NBA Accredited for BE (ECE, EEE, MECH) | Accredited by NAAC with A+ Grade
(AUTONOMOUS)



ZENITH'25

DEPARTMENT OF ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING

ZENITH'25

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Dr. N. Neela Vishnu
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Dr. Rajesh
Principal



CHAIRMAN'S MESSAGE



Since its establishment in 2012, Rohini College of Engineering and Technology (RCET) has consistently strived for excellence, reaching remarkable milestones in academic and institutional growth. Over the years, the college has demonstrated a positive trajectory in all spheres of performance — academic, research, and innovation.

Our vision has always been to achieve global standards in technical education, fostering a culture of research, creativity, leadership, and entrepreneurship that contributes meaningfully to the progress of society and humanity.

As the Chairman of Rohini College of Engineering and Technology, I take immense pride in the Department of Artificial Intelligence and Machine Learning for publishing the 1st Edition of the Department Magazine for the academic year 2025–2026. The dedicated efforts and teamwork of the students, coupled with their academic accomplishments and active participation in various departmental activities, stand as a testament to the continuous growth of both the department and the institution.

Cordially,
Shri.K. NEELA MARTHANDAN
Chairman, Rohini Groups.

PRINCIPAL'S MESSAGE

It is with great pride and happiness that I pen down this message for the inaugural edition of the Department of Artificial Intelligence and Machine Learning magazine for the academic year 2025–2026. The launch of this publication marks a new beginning, highlighting the intellectual spirit, innovation, and creativity of our students and faculty.



I commend the Department of AI & ML, along with the editorial team, for their dedicated efforts in bringing this magazine to life. Such initiatives encourage collaborative learning, foster curiosity, and help students develop the confidence to explore and express their thoughts. As Principal, I firmly believe that education is not just about imparting knowledge but also about inspiring vision and values. I am confident that the students of this department will continue to rise to new heights, upholding excellence in academics, research, and innovation. On this special occasion, I extend my best wishes to the department, the faculty, and the student community. May this first edition of the magazine serve as a beacon of inspiration and pave the way for many more successful endeavors in the years ahead.

**Cordially,
Dr. R. RAJESH
Principal**

HOD'S MESSAGE

Artificial Intelligence and Machine Learning are no longer just futuristic concepts – they are realities shaping every aspect of our lives today. From personalized recommendations on your mobile apps to autonomous vehicles, from intelligent medical diagnosis to financial forecasting AI and ML are transforming industries and creating new opportunities every single day.

As students of this program, you are stepping into one of the most dynamic and in-demand fields of technology. The world needs skilled professionals who not only understand algorithms and data, but also have the creativity, ethics, and vision to apply them responsibly for society's benefit. Here in our department, you will learn the foundations of computer science along with specialized knowledge in AI and ML – including data science, deep learning, natural language processing, and computer vision. Beyond academics, we encourage you to engage in research, projects, hackathons, and industry collaborations that will sharpen your problem-solving and innovation skills.



Dr. Vallirathi I
Asso.prof & HOD

COLLEGE VISION AND MISSION

Vision:

To be an academic institute of continuous excellence towards education and research in rural regime and provide service to nation in terms of nurturing potentially higher social, ethical and engineering companion graduands

MISSION:

To foster and promote technically competent graduands by imparting the state of art Engineering education in rural regime. To enunciate research assisted scientific learning by dissemination of knowledge towards science, agriculture, industry and national security

DEPARTMENT FACULTY



Mrs. Anuja R
Assistant Professor



Mrs. A. Mercy Rani
Assistant Professor



Mrs. Mino Shamly
Assistant Professor

DEPARTMENT FACULTY



Dr. Janarish Saju C
Professor

Rahul
Assistant Professor



DEPARTMENT FACULTY MESSAGE



As you immerse yourselves in the ever-evolving domains of Artificial Intelligence and Machine Learning, always strive for excellence and integrity. Understand that success comes from persistence, team

and a willingness to adapt to emerging technologies. Participate in research clubs, workshops, and community outreach to broaden your skills and perspective. Remember, your innovation today is the catalyst for tomorrow.



To all CSE AIML students, your passion and perseverance are the keys to turning challenges into opportunities. Embrace every learning experience—be it a classroom lesson, a coding competition, or industry interaction—with enthusiasm

Continually focus on ethical innovation and effective communication, as these not only shape skilled engineers but also responsible technologists who make meaningful impact in the AI-driven world

DEPARTMENT FACULTY MESSAGE

Dear students, as you navigate your academic path in Artificial Intelligence and Machine Learning, remember that each project, seminar, and internship is a step towards building a powerful foundation for your future.



Dear students, your journey through CSE AIML is more than just academics—it is a path to becoming skilled professionals and responsible innovators. Develop strong fundamentals, but pursue strong building through competitions, value-added courses, and teamwork.

As you embark on your journey in Artificial Intelligence and Machine Learning, always remember the importance of curiosity, perseverance, and continuous learning. This field is constantly evolving, offering



STAFF EDITORIAL MESSAGE



Mrs. Anuja

As we reflect on our recent achievements, it is clear our greatest strength is our collaboration. Every individual contribution is vital to our collective success. Thank you for your unwavering spirit and partnership. Here's to reaching even greater heights together

As the festive season approaches, let's channel its vibrant energy into finishing the year strong. Your dedication has been the cornerstone of our progress. Let's make this final quarter our most successful yet, driven by our shared vision and teamwork.

Mrs. A. Mercy Rani



STUDENT'S EDITORIAL MESSAGE

True education lies in honesty and hard work, not in shortcuts, for cheating may give marks but not knowledge, so let us uphold integrity in every exam and remember that success earned with sincerity is the success that lasts forever.



Sanchai M

Supiesh S P



"Growth begins when ideas are shared and voices are heard. Every exchange of thought is a chance to inspire, learn, and look at the world from a new perspective. True progress starts with curiosity and the courage to express it."



Nishanth A

Success doesn't chase attention; it earns respect through vision and consistency. Greatness grows in silence — seen only when the work speaks...

Abilash R V



"Education shapes our future; let's learn with passion and lead with purpose."
"Together we grow, achieve, and inspire to make our school shine brighter every day."

STUDENT'S EDITORIAL MESSAGE

Gopika V



Exams are a chance to prove our effort, not to seek shortcuts, and by choosing truth over cheating we build confidence, gain real knowledge, and secure a future shaped by sincerity.

Karthika M



Honesty in exams shows the strength of our character, and avoiding cheating ensures that our success is earned, our knowledge is genuine, and our future is built on integrity.

Bhavya Shree T



True success comes from effort and honesty, not from cheating, and by valuing integrity in exams, we not only grow in knowledge but also build a trustworthy and respected character.

EDITORIAL TEAM



ABOUT RCET



Rohini college of Engineering and Technology (RCET), founded in the year 2012 by Shri.K.Neela Marthandan, a great Industrialist and philanthropist, stands out as a prestigious Institution of higher learning with a mission of pursuing excellence in education and research. The institution is run by Dr.N.Neela Vishnu as the pro chairman and Dr.V.M.Blessy Geo as Managing Director. The institution, with dynamic community of students offers 9 undergraduate programs, 8 postgraduate programs and a research program in Mechanical Engineering with accomplished faculty, high class facilities and premium hostels. RCET is located at Palkulam near Anjugram which is 5 kms from Kanyakumari and 14 kms from Nagercoil junction.

ABOUT US

The Department of Computer Science and Engineering (AI & ML) started in the year 2024. The department accommodate outcome based education which helps the students to learn, develop and serve to the society. The department has experienced and dedicated faculty with a wide range of specifications like network security, cloud computing, internet of things, Big data and image processing. The department has well established laboratory facilities to conduct research work on different specialized areas of Computer Science and Engineering (AI & ML). The students of the department have received external research funding from Tamilnadu state council for science and Technology in recent years.

The Department of Computer Science and Engineering (AI & ML) at Rohini College of Engineering stands out for its commitment to cutting-edge education and research, providing students with hands-on experience in areas like network security, cloud computing, Internet of Things, big data, and image processing. With highly dedicated faculty and state-of-the-art laboratories, the department nurtures innovation and practical learning, enabling students to secure external research funding, excel in competitive placements, and even pursue entrepreneurial ventures. Through a blend of rigorous academics, real-world projects, and research opportunities, the department empowers students to develop advanced skills and make meaningful contributions to the field of AI and ML.

The AIML department at Rohini College of Engineering and Technology is committed to shaping future-ready professionals who can navigate the complexities of artificial intelligence and machine learning. Its mission is to deliver a comprehensive curriculum that emphasizes hands-on experience and critical thinking, preparing students to develop innovative solutions for real-world problems. The program is dedicated to fostering a culture of lifelong learning and ethical practice, ensuring graduates are not only technically proficient but also socially responsible leaders in the tech industry.



ARTICLES



The Role and Risks of Artificial Intelligence

Artificial Intelligence (AI) is becoming a part of our daily lives. It helps in many areas, such as finding new medicines faster and giving patients more personalized treatments. One popular type of AI is Generative AI, which creates content quickly and can summarize or translate text using tools like ChatGPT, DeepSeek, and Claude. AI uses techniques from machine learning, statistics, and logic to make predictions and decisions based on goals set by users.

AI can save time and make work easier, but it also has risks. The same technology that helps research can also be misused, for example, to find harmful chemical combinations or to interfere with self-driving cars. These problems show that while AI is powerful, it can also be dangerous if not used carefully.

AI systems learn from data, and if the data is biased, their results will be biased too. Attackers can also use AI to launch cyberattacks more quickly and on a larger scale. When AI controls important systems like power grids or vehicles, these attacks can cause serious harm. Since AI tools are easy to access, almost anyone can use them for both good or bad purposes.

In conclusion, AI has great potential to improve our world, but it also brings new challenges. To use it safely, people need to understand



its risks and apply strong rules and ethics. If managed wisely, AI can remain a powerful tool that benefits everyone



Dr. Vallirathi I
Asso. Prof & HoD
CSE (AI&ML)

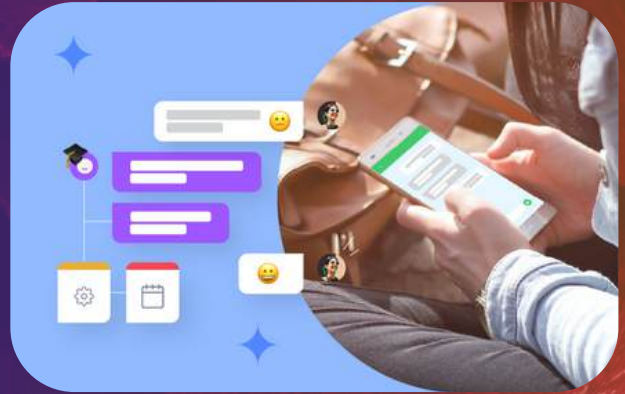
AI Chatbot for College Enquiry System

Redefining Student Support with Intelligence

In today's digital age, colleges receive hundreds of queries every day — from admission procedures and course details to fee structures, placement information, and event schedules. Traditionally, students or parents need to visit the campus or contact staff for even basic information. This consumes time, creates delays, and adds workload for administrative departments. To overcome these challenges, the AI Chatbot for College Enquiry System offers an innovative, intelligent, and accessible solution.

An AI chatbot acts as a virtual assistant that can interact with users in real time, understand their questions, and provide accurate answers instantly. Built using natural language processing (NLP) and machine learning, the chatbot can communicate through text or voice — making it user-friendly for students, parents, and staff alike. For example, if a user types "What is the admission procedure for CSE?", the chatbot immediately replies with detailed information from the college database.

The system can handle a wide range of queries — course details, faculty information, exam schedules, hostel facilities, transportation, and contact information. Over time, it becomes smarter by learning from previous interactions, ensuring more 24/7,



ensuring that users get answers anytime, from anywhere.

Integration with the college website or mobile app makes the chatbot easily accessible. It can also store frequently asked questions and support multiple languages to reach a wider audience. For administrative staff, this reduces manual workload and improves communication efficiency. For students, it provides a quick, reliable, and interactive way to access important information without waiting in queues or emails.



Anuja
Assis. Prof
CSE (AI&ML)

AI in Healthcare

A Silent Revolution Saving Lives



Healthcare has always been at the forefront of technological innovation, but in recent years, artificial intelligence (AI) has quietly sparked a revolution that is reshaping how we diagnose, treat, and prevent diseases. Unlike traditional tools, AI brings the ability to learn from massive amounts of medical data, detect subtle patterns invisible to the human eye, and provide real-time insights that can save lives. For patients and doctors alike, it feels like an invisible companion working tirelessly in the background.

One of the most transformative applications lies in medical imaging and diagnostics. Advanced machine learning algorithms can now scan X-rays, MRIs, and CT images with remarkable accuracy. They are capable of spotting early signs of cancer, fractures, or neurological disorders, often faster and more reliably than traditional methods. For a patient, this means earlier detection, timely treatment, and a

greater chance of recovery. Imagine an oncologist receiving AI-generated alerts about suspicious tissue growth – the collaboration between human expertise and machine precision ensures that no detail goes unnoticed.

AI is also revolutionizing personalized medicine. Instead of one-size-fits-all treatments, algorithms analyze genetic information, lifestyle data, and medical history to recommend therapies tailored to each individual. A diabetic patient, for example, might receive real-time glucose monitoring combined with AI-driven dietary advice, reducing the risk of complications. This shift toward personalization not only improves health outcomes but also reduces unnecessary costs and side effects.



Mercy Rani
Assis. Prof
CSE (AI&ML)

THE PREDICTIVE POWER OF AI

Transforming Foresight into Action

The capability to accurately predict the future has always been the gold standard for strategic advantage, and today, Artificial Intelligence has democratized that power. Predictive AI, fueled by Machine Learning (ML) and Deep Learning, is transitioning global industries from reactive operations to a state of profound foresight. This technological leap involves training sophisticated algorithms on massive datasets—be they financial transactions, patient medical records, or sensor readings from factory floors—to uncover complex, non-linear patterns that are invisible to traditional analytics. The result is a system that not only understands what happened, but reliably anticipates what will happen next.



The most transformative applications of this predictive intelligence are evident across several core sectors.

In Healthcare, AI models analyze genomic data and patient history to predict individual risk for chronic diseases or life-threatening events, such as heart failure, months or even years in advance. This forewarning allows clinicians to pivot to preventive medicine, intervening with personalized treatment before the disease takes hold. Similarly, in hospital operations, predictive AI forecasts patient admissions and length of stay, enabling administrators to optimize staffing, allocate resources efficiently, and even prevent the spread of infectious disease outbreaks. In the world of Finance and Commerce, prediction translates directly into mitigated risk and increased revenue.



Archana
II-year CSE (AI&ML)

AI-Powered Personal Assistant for the Visually Impaired

The Future of
Accessibility
Voice-Activated
Assistants
Empowering
the Visually Impaired



Technology has always served as a bridge to overcome human limitations, and one of its most transformative applications today lies in empowering people with disabilities. Among them, the visually impaired face unique challenges in carrying out everyday tasks such as reading, traveling independently, or recognizing the faces of those around them. While traditional aids like white canes and Braille books have long supported this community, they fall short in providing real-time awareness of dynamic environments. This is where artificial intelligence steps in, offering innovative personal assistants that act as a new set of eyes for those without vision.

These AI-powered assistants rely on a combination of computer vision, speech processing, and wearable devices to make the invisible visible. Equipped with smart cameras and sensors, they capture surroundings and process the data using advanced machine learning algorithms.

The system then translates this information into audio cues, enabling the user to understand their environment. Imagine a visually impaired individual walking down a busy street – the assistant can alert them of approaching vehicles, signal when the path is clear, and even help them identify the nearest bus stop or shop entrance. Such precise and real-time guidance ensures both safety and independence.

Another striking feature of these assistants is their ability to recognize and interpret text, objects, and people. Through optical character recognition, documents, labels, or even restaurant menus can be instantly read aloud. Facial recognition enables the identification of friends, family members, or colleagues, making social interactions smoother and less dependent on external help.

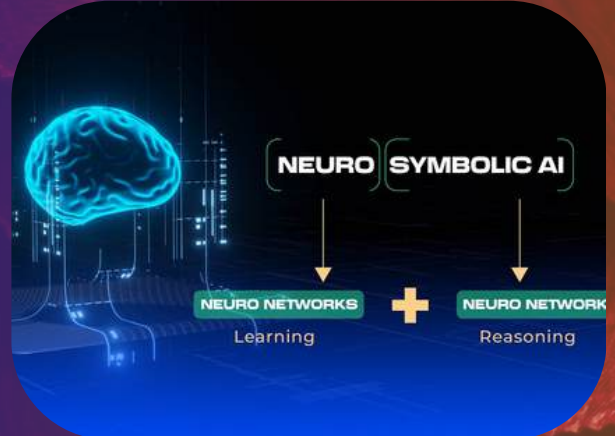


Karthiga devi
II-year CSE(AI&ML)

Neuro-Symbolic AI

Neuro-Symbolic AI represents one of the most exciting frontiers in artificial intelligence, bridging the gap between raw computational power and human-like reasoning. Traditional neural networks have shown incredible capabilities in tasks like image recognition, language translation, and even generating art or code. However, they often operate as “black boxes,” producing results without explanations, which can be a major limitation in critical applications like healthcare, finance, or autonomous driving. Symbolic AI, on the other hand, operates differently. It uses explicit rules, logic, and structured knowledge to solve problems, much like how humans reason through a situation step by step. While it can offer transparency and interpretability, it struggles to learn from unstructured data like images, audio, or raw text. Neuro-Symbolic AI cleverly combines these two approaches, enabling machines to learn patterns from data and reason using structured knowledge, thus creating systems that are both intelligent and explainable.

The power of Neuro-Symbolic AI lies in its hybrid nature. Neural networks excel at recognizing subtle patterns that are difficult to define with rules alone. For example, they can detect anomalies in medical images or predict trends from complex datasets. Symbolic reasoning complements this by allowing the



AI to follow logical rules, draw inferences, and explain its decisions in a human-understandable way. This combination means that AI can go beyond pattern recognition and make decisions that are interpretable, trustworthy, and adaptable to new situations. For instance, in healthcare, a Neuro-Symbolic AI system can not only detect the early signs of a disease from imaging data but also provide a clear reasoning pathway that helps doctors understand why the system reached a particular conclusion. This transparency is critical in domains where lives are at stake and trust is paramount.



Alima Beevi
II-year CSE(AI&ML)

AI in Cybersecurity

Safeguarding the Digital World

In today's digital age, data has become the most valuable asset, powering businesses, governments, and everyday life. But with this reliance on technology comes an ever-growing threat: cyberattacks. From identity theft and financial fraud to large-scale breaches of sensitive government information, the risks are immense and constantly evolving. Traditional security systems, though effective to a point, often fall short in identifying sophisticated attacks that adapt and strike in real time. This is where Artificial Intelligence (AI) emerges as a powerful defender, reshaping the landscape of cybersecurity with intelligence and speed.

AI in cybersecurity relies on advanced machine learning algorithms that can detect unusual patterns, analyze billions of data points, and respond faster than any human team could manage. Imagine a company's server under attack from hackers trying to break into its system. While human experts might take hours to identify the breach, AI systems can recognize abnormal behavior within seconds — blocking malicious activity before it causes damage. This ability to learn from past incidents and predict new threats makes AI an indispensable tool in modern defense strategies.



One of the most remarkable applications of AI in this field is its role in threat detection and prevention. Cybercriminals often use techniques that constantly change to evade traditional filters. AI, however, adapts dynamically by studying network behavior and spotting anomalies that signal potential attacks. For instance, if an employee's account suddenly starts downloading large amounts of sensitive data at midnight, the AI system can immediately flag this as suspicious and lock the account to prevent further damage. Such proactive defense mechanisms reduce risks and safeguard critical information.



Elgin E H
II-year CSE (AI&ML)

AI Traffic Assistant for Accident Prevention:

Making Roads Smarter and Safer

Road safety has become one of the biggest challenges of modern society. With millions of vehicles on the road every day, accidents occur frequently due to human error, distractions, speeding, or drowsy driving. Traditional methods like traffic signals, speed breakers, and road signs help, but they cannot actively monitor every driver or situation in real time. This is where artificial intelligence steps in — offering intelligent solutions that can reduce accidents, save lives, and make travel safer.

The AI Traffic Assistant is designed to act as a smart companion for drivers. Using computer vision, machine learning, and IoT sensors, it continuously monitors both the driver and the surrounding environment. For example, cameras inside the car can track the driver's eye movements to detect signs of drowsiness or distraction. If the driver begins to lose focus, the system issues



instant alerts, preventing accidents before they occur.

Externally, AI systems use sensors and cameras to analyze road conditions, traffic signals, pedestrian movements, and nearby vehicles. In case of sudden obstacles, risky overtakes, or harsh braking by other vehicles, the system warns the driver and suggests safer alternatives. Some advanced systems can even automatically adjust speed or apply brakes to avoid collisions, working as a protective shield for passengers.



Abilash R V
II-year CSE (AI&ML)

AI-Powered Fake News Detection System

The rise of digital media has brought with it the rapid spread of fake news, which poses serious challenges to society by spreading misinformation that can influence public opinion, politics, and health. To combat this, AI-powered fake news detection systems have become essential tools. These systems use artificial intelligence and machine learning to analyze the text of news articles and social media posts, identifying patterns and subtle cues that distinguish fake content from real news.



Using natural language processing techniques and deep learning models such as BERT, the system can understand the context and semantics of text far better than traditional keyword-based methods. By training on large datasets of verified true and false news, it becomes capable of classifying news content with high accuracy.

One of the key strengths of these systems is their ability to provide real-time verification, allowing users to quickly check the authenticity of information before sharing it. This helps reduce the spread of misinformation and promotes a more informed population. Additionally, many systems are implemented on cloud platforms to handle large amounts of data and ensure security and scalability.

Despite ongoing challenges, including detecting deceptive language nuances and continuously evolving misinformation strategies, AI fake news detectors are gradually improving in reliability and effectiveness. They represent a promising application of AI and ML to address a vital societal need—preserving truth and trust in the information age.



Samu Sundar.M
II-year CSE (AI&ML)

AI in Disaster Management

Saving Lives with Smart Technology

Disasters, whether natural or man-made, often strike without warning, leaving behind chaos, destruction, and human suffering. From earthquakes and floods to wildfires and pandemics, communities worldwide face challenges that demand quick response and effective coordination. Traditional disaster management systems, while helpful, often struggle with the speed and scale required to minimize loss. In this context, artificial intelligence (AI) has emerged as a game-changer, revolutionizing how we prepare for, respond to, and recover from disasters.

AI-powered systems integrate predictive analytics, satellite imagery, and real-time data to foresee and mitigate potential risks. By analyzing weather patterns, seismic activity, and historical data, AI can forecast disasters such as cyclones or floods with greater accuracy, giving communities precious time to evacuate and prepare. For instance, AI models can predict the path of hurricanes or detect rising water levels, enabling authorities to act before devastation occurs. This proactive approach shifts disaster management from reactive measures to preventive strategies, ultimately saving countless lives.



During active disasters, AI enhances situational awareness. Drones equipped with AI-driven cameras can map disaster zones, assess damage, and locate survivors trapped under debris. Social media monitoring tools powered by natural language processing help filter urgent distress messages from noise, ensuring rapid rescue operations. In addition, AI-powered chatbots provide real-time updates to citizens, guiding them toward safe zones and emergency shelters. These tools reduce dependence on manual monitoring, allowing relief teams to focus their efforts more effectively.



Neelavathi
II-year CSE (AI&ML)

"The Future of Forgetting"

Why AI Must Learn to Erase Data

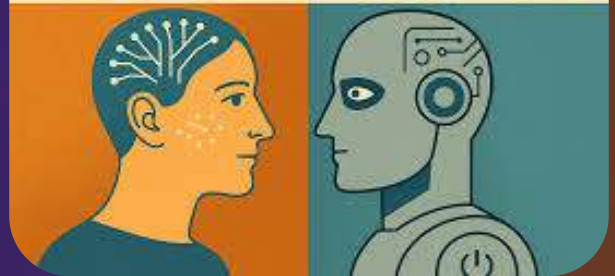
Human memory is imperfect — we forget, sometimes by accident, sometimes by necessity. Forgetting is not a flaw; it's essential for creativity, mental health, and decision-making. But artificial intelligence, unlike us, has the potential to remember everything. Today's AI models store massive datasets, learn patterns, and generate outputs based on past information. Yet, in a world where privacy, adaptability, and ethical intelligence matter, the ability to forget may be just as important as the ability to learn.

Psychologists argue that forgetting is not just memory loss — it is a cognitive filter. Without it, we would drown in irrelevant details. Forgetting allows us to prioritize, reframe experiences, and move forward. For example, we forget mistakes to grow, and we let go of trauma to heal. In short, forgetting shapes who we are.

AI models are trained on vast datasets. Once data is embedded in neural weights, it is nearly impossible to remove specific pieces. For instance, if a language model learns your private phone number from a dataset, "forgetting" that information without retraining the entire system is extremely difficult. Unlike humans, AI doesn't naturally distinguish between what's essential and what's disposable.

AI models are trained on vast datasets. Once data is embedded in neural weights, it is nearly impossible to remove specific pieces. For instance, if a language model learns your private phone number from a dataset, "forgetting" that information without retraining the entire system is extremely difficult. Unlike humans, AI doesn't naturally distinguish between what's essential and what's disposable.

An AI That Can Forget: The Radical New Feature That Might Save Your Digital Soul

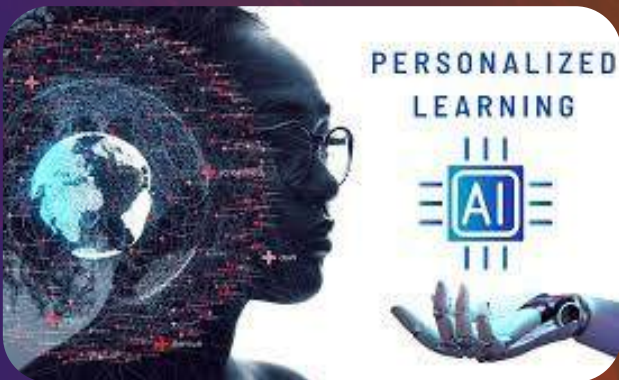


Akhila Aravindan
II-year CSE (AI&ML)

AI in Education

Personalized Learning for Every Student

Education has always been about unlocking each learner's potential. Yet in traditional classrooms, where one teacher manages dozens of students, providing fully personalized attention is nearly impossible. This is where Artificial Intelligence (AI) is transforming education. By analyzing data, predicting learning patterns, and offering tailored solutions, AI is making personalized learning a reality.



What is Personalized Learning?

Personalized learning means adapting education to fit the unique needs, pace, strengths, and weaknesses of each student. Unlike the "one-size-fits-all" approach, AI-powered systems can adjust lessons to suit individual learning styles.

For instance, if a student struggles with fractions, AI can provide extra practice problems and hints. On the other hand, if a learner excels in geometry, it can suggest advanced challenges to keep them engaged.

How AI Enables Personalized Learning

AI makes education more adaptive through several methods:

1. Smart Learning Platforms – Platforms like Coursera, Khan Academy, and BYJU's use AI to recommend lessons based on a student's progress.
2. AI Tutors and Chatbots – Virtual assistants provide 24/7 help, answering student queries outside the classroom.
3. Predictive Analytics – By studying past performance, AI predicts areas of struggle and proactively offers support.
4. Natural Language Processing (NLP) – Language-based AI tools improve grammar, essay writing, and translation for non-native speakers.



LIJO MV
II-year CSE (AI&ML)

AI-Powered Fashion Design Generator

Redefining Creativity in Style

Fashion has always been a canvas for self-expression, blending art, culture, and innovation. From the elegance of hand-crafted garments to the efficiency of digital design, the industry constantly evolves to meet changing trends. Today, a new player is revolutionizing the runway — Artificial Intelligence. With the rise of AI-powered fashion design generators, creativity is entering a new era where machines collaborate with designers to produce fresh, original, and sustainable styles.

These systems work by combining computer vision, generative models, and trend analysis. By studying thousands of fashion images, fabrics, and runway shows, AI learns the language of style — shapes, textures, and color palettes. When prompted, the generator produces new clothing designs, offering sketches, fabric suggestions, or even entire collections. For example, a designer could request “a futuristic streetwear jacket with neon highlights,” and the system would instantly generate variations, reducing the weeks of trial and error that traditional methods require.

Beyond speed, the true strength of these generators lies in innovation and inclusivity. AI can merge diverse cultural influences,

experiment with patterns that humans might overlook, and adapt to evolving customer demands. Through sustainability-focused models, it can also recommend eco-friendly fabrics or simulate designs virtually, minimizing fabric waste during prototyping. This transforms fashion from a resource-heavy industry into one that embraces efficiency and environmental consciousness.



THASNEEM FATHIMA.S
II-year CSE (AI&ML)

AI as Eyes:

Personal Assistants for Visual Independence

Technology is reshaping the way people connect with the world, and for those who are visually impaired, it is opening doors once thought to be permanently closed. Traditional aids like walking canes, Braille, or human assistance have provided essential support, yet they fall short when it comes to real-time awareness, adaptability, and independence. Today, artificial intelligence offers a powerful new solution: personal assistants that act as “digital eyes,” helping visually impaired individuals navigate daily life with freedom and confidence.

These AI-powered assistants combine advanced technologies such as computer vision, natural language processing, and wearable devices to interpret the environment in real time. Equipped with smart cameras and sensors, they capture visual data, analyze it through machine learning algorithms, and relay meaningful information back to the user through audio feedback. Imagine standing at a busy intersection — the assistant can identify traffic signals, announce when it is safe to cross, and alert the user of approaching vehicles or obstacles. This level of intelligent guidance transforms moments of uncertainty into experiences of safety and independence.

One of the most impactful features of these systems is object and text recognition. With optical character recognition, printed material such as medicine labels, restaurant menus, or textbooks can be instantly converted into speech. This makes learning, shopping, and everyday decision-making seamless. Facial recognition adds another layer of empowerment, allowing users to identify friends, family, or colleagues, making social interactions more natural and engaging. Over time, these AI assistants learn the habits and preferences of their users — recognizing frequently visited places, favorite routes, and daily routines — offering a personalized and adaptive experience.



Muthu Prajin
II-year CSE (AI&ML)

The Unseen Mentor

How AI is Powering Education's Revolution

Education has always been the cornerstone of progress, but in today's fast-changing world, the way we teach and learn is undergoing a quiet revolution powered by artificial intelligence (AI). Far from being just a futuristic concept, AI is already reshaping classrooms, personalizing learning, and bridging gaps that traditional education methods often leave behind. For students and teachers alike, it acts as an unseen mentor — guiding, assisting, and ensuring that no learner is left behind.

The Power of Personalized Paths

One of the most powerful applications of AI in education lies in personalized learning. Traditional classrooms, with their standardized pace and one-size-fits-all approach, often struggle to address individual needs. AI-driven platforms, however, analyze a student's strengths, weaknesses, and learning patterns to create tailored study plans.

Imagine a math app that notices when a student struggles with fractions and instantly offers interactive exercises, step-by-step explanations, and real-world examples to strengthen their understanding. This dynamic, adaptive style ensures that learning is not just faster, but deeper and more meaningful, leading to improved retention and academic outcomes. By catering to individual cognitive strengths, AI fosters a sense of ownership over the learning process.



Liberating the Educator

AI is also transforming how teachers approach education. Grading assignments, preparing lesson plans, and tracking student progress can consume valuable hours that educators could otherwise dedicate to mentorship. Intelligent systems now automate administrative tasks — from generating lesson plans and quizzes to providing real-time performance reports.

Global Knowledge, Local Access.



Vergin Mejila A.V
II-year CSE (AI&ML)

AI for Sustainable Farming

Cultivating the Future of Agriculture

Agriculture has always been the backbone of human civilization, but in today's world, it faces enormous challenges. Climate change, unpredictable rainfall, soil degradation, and rising food demands put immense pressure on farmers. Traditional farming methods, though time-tested, often fail to meet the efficiency and sustainability required in a fast-changing environment. This is where artificial intelligence steps in – offering farmers smart solutions that transform uncertainty into opportunity and lay the foundation for sustainable farming.

AI-powered farming systems integrate tools like computer vision, machine learning, and IoT (Internet of Things) sensors to analyze crops, soil, and weather in real time. Sensors placed in the field collect data on soil moisture, nutrient levels, and temperature. This information is then processed by AI models that provide accurate recommendations for irrigation, fertilization, and pest control. For example, instead of watering fields uniformly, the system can identify exactly which part of the farm needs water, saving resources and increasing yield.

One of the most impactful features of AI in farming is precision agriculture. Using drones and



satellite imagery, AI can monitor crop health, detect diseases early, and even predict harvest outcomes. This allows farmers to act quickly, reducing losses and improving productivity. Similarly, AI-powered image recognition can identify weeds and suggest targeted treatments, reducing the need for harmful chemicals and protecting the environment.



Mugilla Alias Ramiya
II-year CSE (AI&ML)

Revolutionizing Mental Health Support with AI-Powered Chatbots



In recent years, mental health has become a growing concern worldwide, with increasing numbers of people experiencing stress, anxiety, and depression. The stigma surrounding mental health issues often prevents individuals from seeking help, making it essential to find innovative solutions. AI-powered mental health chatbots offer a discreet and accessible way for people to discuss their feelings and receive support.

These chatbots use natural language processing (NLP) to understand and interpret user inputs, allowing them to respond appropriately. This technology enables the chatbot to comprehend the nuances of human language, providing a more personalized experience. Machine learning algorithms enable the chatbot to learn from interactions and improve its responses over time.

The chatbot is designed to empathize with users, providing supportive and non-judgmental

responses. This empathetic approach helps users feel understood and valued. With 24/7 availability, users can access the chatbot at any time, providing immediate support when needed.

The chatbot offers a safe space for users to share their feelings without fear of judgment or repercussions. Anonymity can encourage more people to seek help, reducing the stigma associated with mental health issues. By providing users with practical tools and techniques, the chatbot empowers them to take control of their mental health.

AI-powered chatbots can reach a wider audience, including those in remote or underserved areas. This increased accessibility can help bridge the gap in mental health support, ensuring that more people receive the help they need. By providing a discreet and anonymous way to seek help, chatbots can encourage more people to open up about their mental health.



Adithya.R
II-year CSE (AI&ML)

Smart Job Recommendation System

AI for Career Empowerment

In a world where industries are rapidly evolving and new career paths are constantly emerging, finding the right job has become both exciting and overwhelming. Job seekers often struggle to match their skills with the opportunities available, while employers find it difficult to reach candidates who truly fit their requirements. Traditional job portals provide listings, but they lack personalization and often flood users with irrelevant options. This is where artificial intelligence brings a breakthrough — Smart Job Recommendation Systems that act as intelligent career guides, connecting people to the right opportunities with precision and confidence.

These systems use machine learning, natural language processing, and data analytics to analyze both the profiles of job seekers and the requirements of employers. A candidate's resume, skills, interests, academic background, and even learning patterns can be processed by AI to generate tailored job suggestions. For example, if a student has experience in Python programming, project work in data analysis, and a strong interest in artificial intelligence, the system can recommend roles such as data analyst, ML engineer, or AI research intern — instead of generic listings.



A key strength of this system lies in its adaptability. Over time, it learns from user interactions — the jobs applied to, skills acquired, and feedback given — and refines its recommendations. It can even suggest upskilling opportunities, such as online courses or certifications, that align with emerging industry demands. This way, the system not only recommends jobs but also helps candidates grow in their career journey.



Iyyappan
II-year CSE (AI&ML)



PROJECT

GESTURE CONTROL HOME AUTOMATION

Home Automation is the new trend in a consumer market. There are many home automation systems with different features and facilities. All the home automation systems are used to control home appliances through a remote control. The remote control can be a stationed unit or a wireless remote. The remote used for controlling appliances usually have keys or touch-based sensors. In this project, a home automation system is designed which can be controlled by gestures.

The system designed in this project controls four appliances which are taken 15-watt bulbs for demonstration. The user can select the appliance to be controlled through a display which shows the list of appliances in a drag-able fashion. The user can swipe through the devices by moving a finger in left or right direction and switch the appliance ON or OFF by moving a finger in an upward or downward direction.

For gesture recognition, APDS-9960 gesture sensor is used. This is the same sensor which is used in Samsung Galaxy S5. The module used in the project has a small breakout board sensor with built in APDS-9960 sensor. The sensor has ambient light detection, color measuring, proximity detection and gesture sensing features. The sensor has on-chip UV and IR blocking filters, four separate diodes sensitive to different directions and I2C compatible interface for communicating with embedded controllers.

The project is built on Arduino UNO and has LCD module for the user interface, APDS-9960 gesture sensor for user input and a relay circuit to drive appliances ON or OFF, interfaced to it. An open-source library for interfacing APDS-9960 gesture sensor with the Arduino is utilized in the project. The Arduino code is written on the Arduino IDE and burnt to the board using AVR Dude. The relay circuit controlling the appliances is hard wired with the Arduino based remote control.

TEAM MEMBERS:

- NISHANTH A
- SUPIESH S P
- SANCHAI M



IOT BASED BLIND STICK

Blindness is the absence of vision. It also refers to a deficiency of optic that cannot be reformed with any other easy ways. Fragmented optic insufficiency suggests getting limited or partial optic power. Complete optic debilitation infers nothing to watch. Among the significant types of incapacity, visual hindrance is perhaps the most severe disability and influences numerous individuals around the globe.

The International Arrangement of Diseases [1-3] characterizes visual deficiency as a distance vision hindrance that introduces visual keenness more regrettable than 3/60. Additionally, as indicated by the World Health Organization (WHO) [4-6], about 2.2 billion individuals are outwardly weakened worldwide. The expense of this enormous section can be huge [7-9]. The research marks out related issues and proposes a brilliant and impaired solution based on IoT that makes a weakened individual's life more straightforward and considerably more effortless.

Comparing with other fundamental devices, "SmartStick" is more intelligent and successful. As those weakened individuals need the help of an intelligent stick constantly, the device will provide them a keen and mechanical arrangement to be confident while moving. The primary aim is to offer and guarantee a strain-free living as like as normal human beings. Impaired people can be tracked via GPS and the Blynk application.

If a blind person encounters any problem, he can transmit a text message to his caretaker by pressing the remote button. If he faces obstacles, then he will be guided through voice messages. All essential features will be in vain if the blind man loses the stick. As a solution, an alarm is set with the IoT-based smart blind stick associated with a remote controller. This alert helps to locate the lost stick. Many individuals who will utilize this visually impaired stick will live a joyful and productive life. In the context of Bangladesh, it is practically difficult to fix visual deficiency, but the intelligent blind stick will offer them the chance to overhaul their lifestyle.

TEAM MEMBERS:

- ROOPIKA
- AKILA



EXAM CHEAT DETECTION

In recent years, information and communication technologies (ICT) witnessed rapid developments and had direct impacts on human life, especially in the field of education. As a result, E-learning has become increasingly popular over the last few years and widely adopted by educational institutions. It enables to deliver information whenever students need at anytime and anywhere over the web. For this reason, it also called web-based learning or online learning.

“Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there” [1]. Assessment is one of the main tasks of the education process. It takes an important weight during the development of any e-learning course. Exams are most widely used to assess student learning. However, exams can be classified into three types: traditional exams, online exams and distance exams (D-exams). Traditional exam defined as a set of questionnaires given in the class. They are created based on static questions per student. As a result, students must begin and end the exam within the same time limits. Online exams, sometimes referred to as e-examination, are Internet based questionnaire.

They are created randomly from questions set per student with a preset time limits by which the exam is to be completed. Furthermore, students should attend to a classroom for performing an exam. D-exams are a way of delivering questions to students who are not physically present in a traditional setting such as a classroom. They are created randomly from questions set per student with a preset time limit by which they should be answered. Furthermore, they save or reduce time required for paper checking, as well as, they save papers, and printing, thus saving environment. D-exam present a new challenges for teachers; notably, how to prevent students from cheating.

TEAM MEMBERS:

- SHIJAI
- VINOSAN
- SAM SUNDAR



WIFI CONTROLLED DRONE

Drones have rapidly evolved from niche hobbies to versatile tools with a wide range of applications, from photography to agriculture or even for defense and military purposes. Building a DIY drone using ESP32 offers an affordable entry point into drone technology, with costs ranging from pocket change to commercial-grade systems. Even though the basic principle behind these drones may appear simple, there is a lot of technology and computation that goes behind it for proper operations. For example, an ESP32 drone flight controller maintains stability while in the air using precision sensors such as a Gyroscope and proper processing algorithms. In this project, we are going to build a complete ESP32 drone code that can be easily controlled using our smartphones. If you are an ESP32 fan, you can also check out our other ESP32 projects, which we built earlier.

A type C USB port is used for both charging as well as programming purposes. The power from the USB port is connected to a power path controller circuit built around a P-Channel MOSFET U2 and a diode D1. When the USB power is available, the device will operate from the USB power and will also charge the internal battery. When the USB power is cut, the device will automatically change to battery power. For voltage regulation, we have used a MIC5219 3.3V LDO from Microchip, which is capable of providing up to 500mA of current with a very low dropout voltage of 500mV at full load. A slide switch with a pull-up resistor is connected to the enable pin of MIC5219. This switch is used for turning on and off the thermal camera. When this pin is pulled to the ground, the LDO will be shut down, and hence the other parts of the device too, except the battery charging section. For charging the internal battery, we are using a TP4056 charge controller, which is capable of a maximum charge current of 1A. For battery voltage sensing, we have used a classic voltage divider, which will reduce the battery voltage to a safe level for measurement.

TEAM MEMBERS:

- IMMANUEL
- AHIL P
- AJAY S



HOUSE PRIZE DETECTION

The "House Price Prediction" project aims to develop a model that can accurately predict housing prices based on various features. This prediction task is of great significance in real estate and finance, enabling informed decision-making for buyers, sellers, and investors. By employing machine learning algorithms and a curated dataset, this project provides a powerful tool for estimating house prices.

Key Features

Data Collection and Processing: The project utilizes the "California Housing" dataset, which can be directly downloaded from the Scikit-learn library. The dataset contains features such as house age, number of rooms, population, and median income. Using Pandas, the data is processed and transformed to ensure it is suitable for analysis.

Data Visualization: The project employs data visualization techniques to gain insights into the dataset. Matplotlib and Seaborn are utilized to create visualizations such as histograms, scatter plots, and correlation matrices. These visualizations provide a deeper understanding of the relationships between features and help identify trends and patterns.

Train-Test Split: To evaluate the performance of the regression model, the project employs the train-test split technique. The dataset is split into training and testing subsets, ensuring that the model is trained on a portion of the data and evaluated on unseen data. This allows for an accurate assessment of the model's predictive capabilities.

Regression Model using XGBoost: The project utilizes the XGBoost algorithm, a popular gradient boosting framework, to build the regression model. XGBoost is known for its ability to handle complex relationships between features and achieve high predictive accuracy. The Scikit-learn library provides an implementation of XGBoost that is utilized in this project.

TEAM MEMBERS:

- ABIN K A
- AJAY L
- JESWIN C S



AI POWERED IMAGE ENHANCER

In today's digital era, images play a vital role in communication, media, education, healthcare, and entertainment. However, many images often suffer from low resolution, poor lighting, noise, or compression artifacts that reduce their visual quality. Traditional image editing techniques can make small improvements, but they are limited in restoring lost details or producing natural-looking enhancements. To overcome these challenges, Artificial Intelligence (AI)-powered image enhancers have emerged as a transformative solution.

AI-powered image enhancers use advanced machine learning models, especially deep learning techniques such as Convolutional Neural Networks (CNNs) and Generative Adversarial Networks (GANs), to intelligently analyze and reconstruct images. Unlike manual editing, these systems learn from millions of image samples and automatically enhance pictures by increasing resolution, improving sharpness, adjusting color balance, and removing noise or distortions. The result is a highly detailed and visually appealing image that often surpasses the original quality.

The applications of AI image enhancement are vast. In photography and media, it helps restore old or blurred pictures to high clarity. In healthcare, it improves the quality of medical images such as X-rays and MRI scans for better diagnosis. In security and surveillance, low-quality footage can be upscaled to reveal clearer details. Moreover, AI image enhancement supports industries like e-commerce, entertainment, satellite imaging, and scientific research, where high-quality visuals are essential.

Overall, the development of AI-powered image enhancers represents a major step forward in digital imaging technology. By combining computational intelligence with creative design, these tools not only improve image quality but also unlock new possibilities for innovation across multiple domains.

TEAM MEMBERS:

- ELGIN E H
- ABILASH R V
- LIJO M V



CAMPUS ASSISTANT CHATBOT

In the age of digital transformation, educational institutions are increasingly adopting smart technologies to improve communication, learning, and administrative efficiency. Among these innovations, the Campus Assistant Chatbot has emerged as a valuable solution for students, faculty, and administration. A chatbot is an AI-powered conversational system that interacts with users through text or voice, providing instant responses and assistance. When specifically designed for a campus, it becomes a personalized virtual assistant that helps in addressing academic, administrative, and general queries.

The Campus Assistant Chatbot can handle a wide range of tasks, such as answering frequently asked questions, providing details about courses, examination schedules, campus events, fee payments, library services, and even hostel or transport facilities. By integrating with campus databases, the chatbot offers real-time, accurate information to students and staff, reducing the burden on administrative offices.

Technically, such a chatbot is powered by Natural Language Processing (NLP) and Machine Learning (ML), which enable it to understand user queries in simple language and generate meaningful responses. Advanced chatbots also use AI techniques like sentiment analysis and context awareness to make conversations more natural and effective.

The importance of a campus assistant chatbot lies in its ability to provide 24/7 support, improve communication, and enhance student satisfaction. For new students, it acts as a guide to campus life; for faculty, it reduces repetitive workloads; and for administration, it ensures faster service delivery. Furthermore, in times of remote or hybrid learning, a chatbot ensures uninterrupted support for academic and non-academic needs. Overall, the Campus Assistant Chatbot represents a step toward building smart campuses, where technology bridges the gap between students and administration, creating a seamless and interactive educational experience.

TEAM MEMBERS:

- MUTHU PRAJIN P
- MOHAMED RIYAZ KHAN
- IYAPPAN T



OBJECT DETECTION USING ML

Object detection is one of the most important tasks in the field of computer vision and artificial intelligence. It goes beyond simply identifying what is present in an image (image classification) by also determining where the objects are located. In other words, object detection not only classifies objects but also provides their position through bounding boxes or segmentation maps.

At the core, object detection involves training algorithms to recognize visual patterns in images or videos. Traditional methods relied on hand-crafted features like edges, textures, or color histograms combined with classifiers such as Support Vector Machines (SVM). However, modern approaches leverage deep learning architectures like Convolutional Neural Networks (CNNs), which can automatically learn relevant features directly from raw data. Models such as R-CNN, Fast R-CNN, Faster R-CNN, YOLO (You Only Look Once), and SSD (Single Shot Detector) have set new benchmarks by balancing speed and accuracy in detecting multiple objects in real time.

The applications of object detection are vast and impactful. In autonomous vehicles, it enables real-time recognition of pedestrians, traffic signs, and other vehicles. In healthcare, it assists in detecting tumors, cells, and abnormalities in medical images. In security and surveillance, it identifies suspicious activities and objects. Additionally, industries such as retail, agriculture, robotics, and smart cities rely heavily on object detection to automate tasks and improve efficiency.

The significance of object detection lies in its ability to bridge human vision with machine intelligence. By combining ML with computer vision, machines can not only see but also understand their surroundings. This has opened the door to innovations that improve safety, productivity, and decision-making in diverse fields.

TEAM MEMBERS:

- PRAKASH G
- NAVIN RAJA H
- NIRMAL RAJA J



FIRE ALARM

A fire alarm is a crucial safety device designed to detect and warn people of the presence of fire, smoke, or gas in a building or environment. Its primary purpose is to provide an early warning system, enabling individuals to evacuate safely and take preventive measures before the situation becomes life-threatening. Fire alarms are an essential part of modern residential, commercial, and industrial safety systems, and are often required by law in schools, hospitals, offices, factories, and public places.

Fire alarm systems typically consist of sensors (smoke detectors, heat detectors, flame detectors, or gas sensors) connected to a central control panel. When the system detects unusual heat, smoke, or flames, it activates an audible alarm (sirens or bells) and visual indicators (flashing lights or strobes).

There are different types of fire alarms, such as manual fire alarms, where a person activates a switch or break-glass unit to trigger the alarm, and automatic fire alarms, which activate through electronic sensors without human intervention. With the integration of modern technology, many fire alarms are now smart systems that use IoT (Internet of Things) and AI for real-time monitoring, remote alerts on smartphones, and intelligent decision-making to minimize false alarms.

The importance of fire alarms cannot be overstated. They save lives, protect property, and reduce financial losses by ensuring that fires are detected and managed at the earliest possible stage. In addition, fire alarms play a key role in building safety compliance and risk management strategies.

In conclusion, fire alarms are not just devices but life-saving systems that form the backbone of fire safety management in any environment. Their reliability, accuracy, and timely warning make them an indispensable part of modern safety infrastructure.

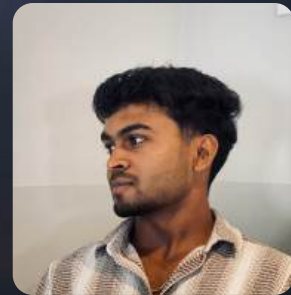
TEAM MEMBERS:

- ABEL SAM THOMAS
- ADARSH
- ABHINAV



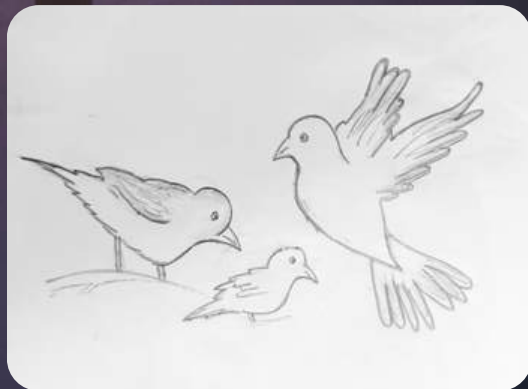
A glowing street lamp stands in the center of a dark, misty forest at night. The lamp's light is warm and yellow, illuminating the surrounding trees and creating a soft glow. The background is a deep blue and purple, with the silhouettes of trees and branches visible. The word "DRAWINGS" is written in a white, elegant, serif font across the middle of the image, centered over the lamp. The overall mood is mysterious and atmospheric.

DRAWINGS



Supiesh S P
II nd YEAR CSE (AI&ML)





SUBIKSHA M
II nd YEAR CSE (AI&ML)





Sri Aruna E
II nd YEAR CSE (AI&ML)





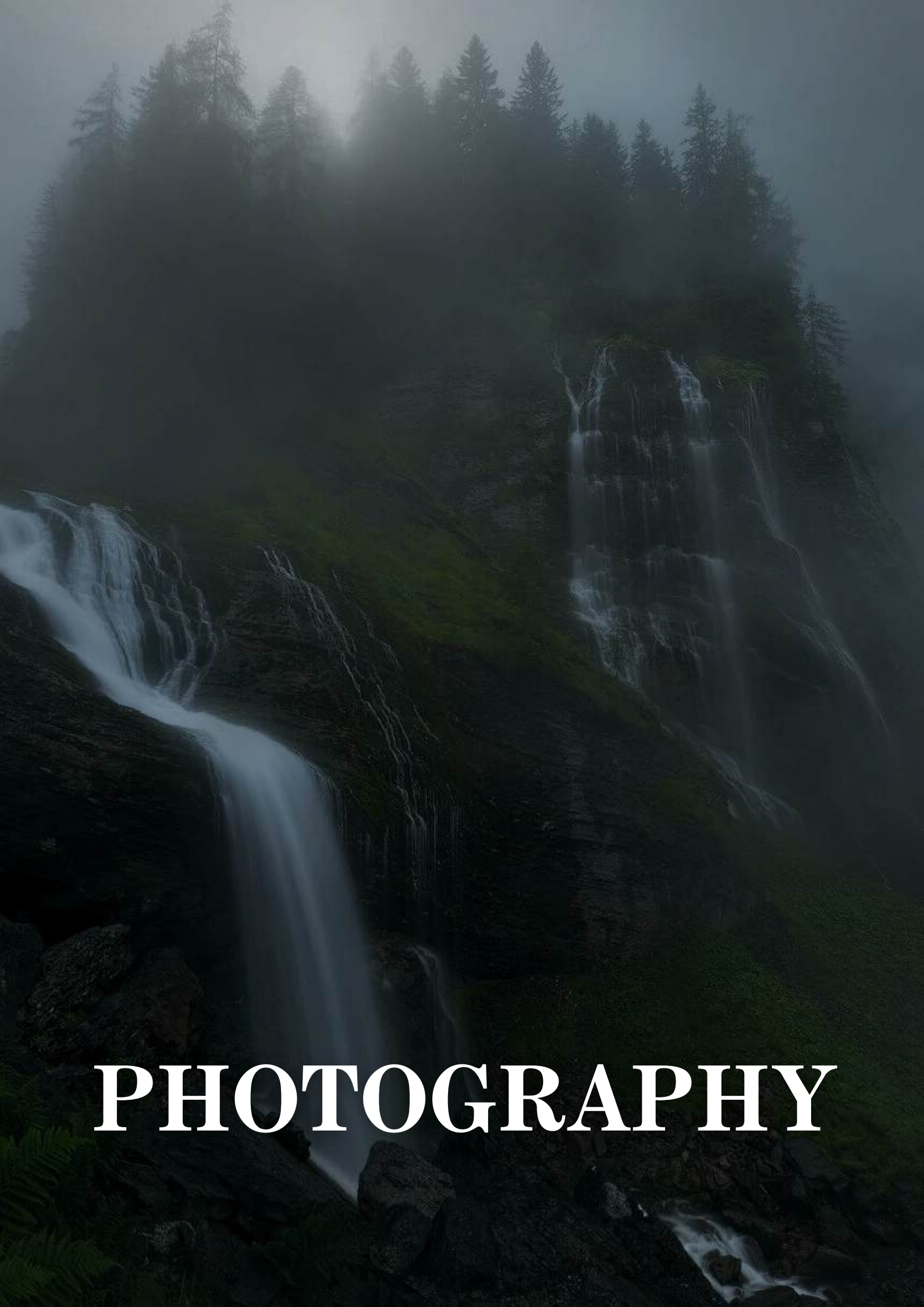
Navin Raja
II nd YEAR CSE (AI&ML)





Rusika
II nd YEAR CSE (AI&ML)





PHOTOGRAPHY









Nishanth A
II year CSE (AI&ML)











SUPIESH S P
II year CSE (AI&ML)



Neelavathi S M
II year CSE (AI&ML)



Vergin Mejila A.V
II year CSE(AIML)







Bhavya Shree T
II year CSE (AI&ML)



GALLERY

Second Year Students 2024-2028



Hands-on Training on Data Craft: Practical DBMS Skills

12th August 2025

The poster features the Rohini College of Engineering & Technology logo and name at the top, along with accreditation marks from NAAC (A+ Grade) and AICTE. Below this, it identifies the Department of CSE (Artificial Intelligence and Machine Learning) as the organizer. The main title of the training is 'HANDS ON TRAINING ON DATA CRAFT : PRACTICAL DBMS SKILLS', scheduled for '12th Aug 2025'. A portrait of Mr. Daniel Raj. K is shown next to his name and title: 'Resource Person, Mr. Daniel Raj. K, Assistant Professor, Dr.G.U.Pope College Of Engineering'.

On 12th August 2025, the Department of Computer Science and Engineering (AI & ML) conducted a hands-on training session titled “Data Craft: Practical DBMS Skills”.

The training was delivered by Mr. Daniel Raj. K, Assistant Professor, Dr. G. U. Pope College of Engineering. The session emphasized the practical aspects of database management systems (DBMS), where students engaged in live exercises to strengthen their database design, query optimization, and real-world implementation skills.

This workshop provided participants with the much-needed industry-ready skills in handling databases effectively, thus enhancing their problem-solving capabilities in data-centric applications

Understanding Machine Learning Algorithms

28th August 2025

The poster features the Rohini College of Engineering & Technology logo at the top, along with accreditation logos for AICTE, NBA, and UGC. The text reads: 'DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (AI & ML) ZETOX '25 ORGANIZES ONE DAY WORKSHOP'. A central callout box contains the title 'Data to Decision-Understanding: MACHINE LEARNING ALGORITHM'. Below this, it specifies the venue as 'IN-BLOCK SIMULATION LAB' and the date as 'THURSDAY 28/08/2025'. A section for the resource person includes a photo of Dr. E. Golden Julie and her title: 'DR. E. GOLDEN JULIE ASSISTANT PROFESSOR (S1.GRADE) ANNA UNIVERSITY, REGIONAL CAMPUS, TIRUNELVELI'. A sidebar on the left encourages participation: 'JOIN FOR DATA TO DECISION MACHINE LEARNING ALGORITHMS, A ONE-DAY WORKSHOP TO UNLOCK THE POWER OF DATA-DRIVEN INTELLIGENCE.'

The Department of Computer Science and Engineering (AI & ML) organized a one-day workshop titled “Data to Decision: Understanding Machine Learning Algorithms” on 28th August 2025 at the In-Block Simulation Lab.

The session was handled by Dr.E. Golden Julie, Assistant Professor (S1 Grade), Anna University Regional Campus, Tirunelveli. The workshop focused on how machine learning algorithms transform raw data into actionable decisions. Participants gained hands-on insights into various ML models, their applications, and how they are shaping industries through data-driven intelligence.

The event enabled students to bridge theoretical concepts with practical approaches, helping them understand how to unlock the true potential of machine learning in real-world scenarios.

One Day Workshop on Automated Intelligent Tools

30th August 2025



The Department of Computer Science and Engineering (AI & ML) hosted an interactive one-day workshop on “Automated Intelligent Tools” on 30th August 2025 at CSE Lab 1, KC Block.

The session was led by Ms. Thana Pavitra Balan, Full Stack Engineer, Anshos Technology, Tirunelveli. She shared her expertise on various cutting-edge tools that automate intelligent decision-making processes, thereby reducing manual effort and enhancing productivity.

Students were exposed to the practical usage of automation in AI-based applications, and they actively explored tools that integrate machine learning and intelligent systems in different domains. The workshop boosted their confidence in adapting to emerging technologies that are reshaping industries.

One Day Workshop on Automated Intelligent Tools

30th August 2025



Workshop on Machine Learning Model

12th September 2025.

The poster features the Rohini College of Engineering & Technology logo at the top left, including the college name and accreditation details. To the right is the NAAC A+ grade logo. Below this is the department name: DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING). The SPECTRA '25 logo is prominently displayed in the center, with the date 12.09.2025. The main title 'Workshop on MACHINE LEARNING MODEL' is written in large, bold letters. At the bottom left is a circular portrait of Mr. R. Saravanakumar, with his name and title 'Resource Person' in a blue box. Below his name, it states he is the Managing Director & CEO of Iconix Software Solutions and Saskive Technologies, Tirunelveli.

As part of the SPECTRA '25 Technical Fest, the Department of Computer Science and Engineering (AI & ML) at RCET organized a Workshop on Machine Learning Model on 12th September 2025.

The session was conducted by Mr. R. Saravanakumar, Managing Director & CEO of Iconix Software Solutions and Saskive Technologies, Tirunelveli. He introduced students to the core concepts of machine learning workflows, including data preprocessing, model training, and evaluation.

With interactive demonstrations and hands-on practice, the workshop provided an engaging and insightful learning experience, inspiring students to explore innovative AI-driven solutions.

Engineers Day

September 15, 2025.

ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY
Approved by AICTE & Affiliated to Anna University
NBA Accredited for BE, ECCE, EEE, MECH (Accredited by NAAC with A+ Grade)
(AUTONOMOUS)

Department of Computer Science and Engineering (AI&ML) & Computer Society of India
Organizes
THINK. CODE. RESOLVE
Engineers Day
Monday 2025
September 15
Rohini College of Engineering and Technology
Dept of Computer Science and Engineering (AI&ML) **ZETOX '25**

The Department of Computer Science and Engineering (AI&ML), in association with the Computer Society of India, organized “Think. Code. Resolve” on Engineers Day, September 15, 2025*.

The event focused on enhancing students’ coding and problem-solving skills, while also highlighting the importance of engineers as innovators in society. Through interactive activities and technical sessions, students gained exposure to *Artificial Intelligence and Machine Learning* applications in real-world problem-solving.

The program inspired participants to think critically, work collaboratively, and embrace innovation, making the Engineers Day celebration both meaningful and impactful.

Hands-on Training on Data Analytics Using Power BI

27th September 2025

ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

Approved by AICTE & Affiliated to Anna university | NBA Accredited Courses
Accredited by NAAC with A+ Grade

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (AIML)

and
COMPUTER SOCIETY OF INDIA
Organizes

**Hands on Training on
DATA ANALYTICS USING POWER BI**
Date : 27.09.2025 | Venue : CSE LAB

Resource Person
Mr. MUTHUVEL
Data Analyst, Alo Info tech, Chunkankadai.

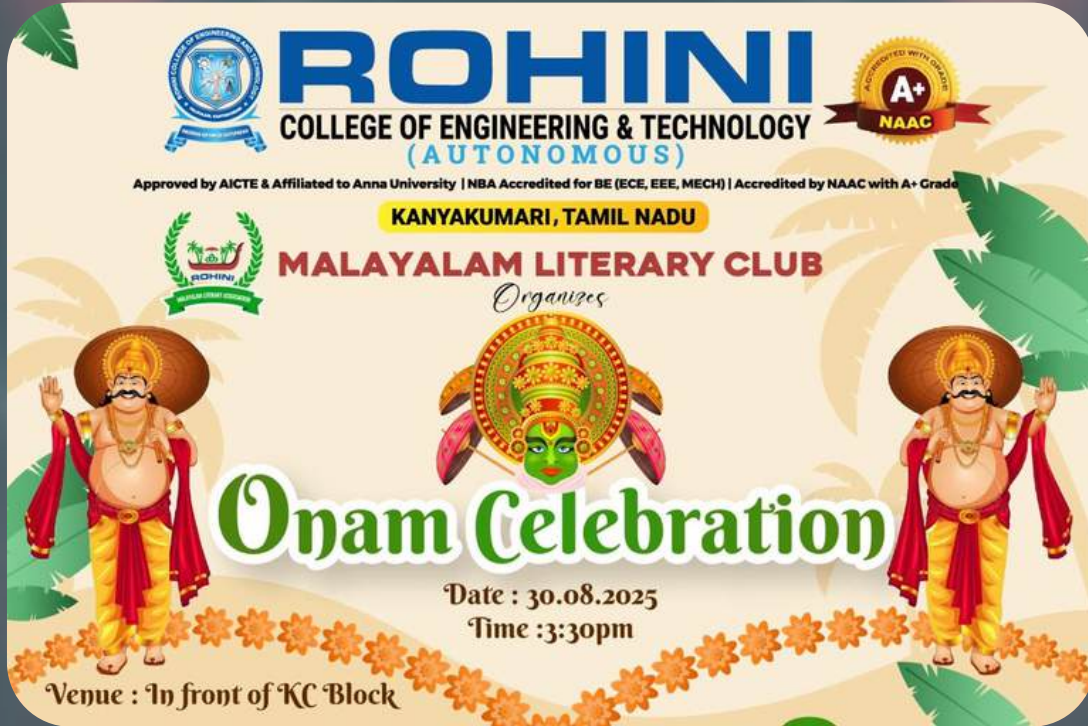
The Department of CSE (AI & ML) in association with the Computer Society of India (CSI) organized a Hands-on Training on Data Analytics Using Power BI on 27th September 2025 at the CSE Lab.

The session was handled by Mr. Muthuvel, Data Analyst at Alo Info Tech, Chunkankadai. He provided students with practical exposure to data visualization, dashboard design, and business intelligence techniques using Power BI.

The workshop was highly interactive and gave participants an opportunity to work on real-time data scenarios, helping them understand how data can be transformed into actionable insights. It turned out to be an informative and skill-building session, equipping students with essential industry-relevant knowledge.

Malayalam Literary Club -Onam Celebration

30th August 2025



The Malayalam Literary Club of Rohini College of Engineering & Technology organized a vibrant Onam Celebration on 30th August 2025 at 3:30 PM, held in front of the KC Block.

The celebration brought the campus alive with the spirit of Kerala's cultural heritage. Traditional songs, dance performances, and festive decorations created an atmosphere of joy and unity. Students dressed in traditional attire added color and charm to the event, while cultural programs highlighted the values of prosperity, harmony, and togetherness that Onam symbolizes.

The event also featured traditional floral arrangements (Pookkalam) and cultural representations of King Mahabali, reminding everyone of the significance of this harvest festival.

The Onam celebration was not only a cultural showcase but also a wonderful opportunity for students and faculty to come together as one family, celebrating diversity and unity.



Onam celebration-2024



Onam celebration-2025

Spectra 2025

12th September 2025



The poster for Spectra 2025 features a blue and purple color scheme with a background of circuitry and a stylized human head profile. At the top, it displays the Rohini College of Engineering & Technology logo, accreditation marks for NAAC (A+ Grade) and NBA, and the department name: DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (AI&ML). The event title 'SPECTRA '25' is prominently displayed in a large, stylized font, with '12 SEPT FRIDAY' to its right. Below the title, the names and titles of the organizing committee members are listed. At the bottom left, a list of event activities is provided, and an arrow points to the word 'EVENTS' on the right.

ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY
Approved by AICTE & Affiliated to Anna University,
NBA Accredited for BE (ECE, EEE, MECH) | Accredited by NAAC with A+ Grade
(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (AI&ML)

Invites you for
SPECTRA '25 **12 SEPT** FRIDAY

Shri k. Neela Marthandan
Chairman, RCET

Dr. N. Neela Vishnu
Pro-Chairman, RCET

Dr. V.M. Blessy Geo
Managing Director, RCET

Dr. R Rajesh
Principal, RCET

Dr. I. Vallirathi
ASP and Head, DoAM, RCET

Mrs. R Anuja
Advisor, DoAM, RCET

- HANDS ON ML MODELS
- BUILD AN ML MODEL
- AI QUIZ + RAPID CODING
- HACKATHON
- ML PROJECT EXPO
- CULTURALS

EVENTS

The Department of Computer Science Engineering (AI&ML) at Rohini College of Engineering and Technology successfully hosted its annual departmental fest, "SPECTRA 2025." This exclusive event provided a dynamic platform to showcase technical expertise and creativity. It featured a diverse mix of workshop emerging AI/ML trends, technical comp a project expo, and vibrant cultural program encouraging problem-solving, teamwork innovation beyond the classroom. In departmental tradition, SPECTRA 2025 continues to inspire students and celebrate the togetherness.

Spectra 2025

12th September 2025

Culturals:



Spectra 2025

Culturals:

Dance



Industrial Visit 2025



Arbion

Students from the AI&ML department recently completed an industrial visit to Arbion in Kochi. This visit provided valuable real-world exposure, allowing students to observe professional operations and interact with industry experts. The experience helped bridge the gap between their academic knowledge and the practical application of technology in a professional setting.

Industrial Visit 2025



Spectrum

The Department of Computer Science and Engineering (AI&ML) organized an industrial visit (IV) to Spectrum Softech on September 18, 2025. This visit provided students with invaluable exposure to the real-world operations of a leading software company. Participants observed live projects, interacted with industry experts, and gained a deeper understanding of the practical applications of their academic knowledge in a professional environment. The visit successfully bridged the gap between classroom learning and industry practices, inspiring students to pursue future careers in technology.

ZETOX '25 – AI & ML Association Inauguration

26th July 2025



The Department of Computer Science and Engineering, Rohini College of Engineering & Technology, proudly inaugurated the Artificial Intelligence and Machine Learning Association – ZETOX 25 on 26th July 2025 at the Opulent Hall.

The event was graced by the presence of Mr. Rabin Delver, Director – Operations & Administration, as the Chief Guest. In his inspiring address, he highlighted the significance of AI and Machine Learning in shaping the future of technology and encouraged students to explore innovative solutions for real-world challenges.

The inauguration was followed by interactive sessions, discussions on emerging trends in AI, and the unveiling of the association's plans for the academic year. The association aims to foster technical expertise, research opportunities, and collaborative learning for students.

Association Innauguration



On July 26, 2025, the Department of Computer Science and Engineering at Rohini College of Engineering & Technology inaugurated its AI & ML

Association, ZETOX 25. The event, graced by Chief Guest Mr. Rabin Delver, highlighted AI's crucial role in technology's future. The inauguration was followed by interactive sessions and the unveiling of the association's plans to foster technical expertise, promote research opportunities, and encourage collaborative learning. The event successfully motivated participants to embrace cutting-edge technologies.

Association Members

Secretary



Abilash R V
General Secretary



Supiesh S P
Joint Secretary

Seminar Secretary



Gopika V



Archana S

Association Members



Bhavya Shree T
Treasurer



Immanuel
IV Secretary

Executive Members



Karthika M



Neelavathi



**Mugila Alias
Ramya**



Lasiya



**Karthika
Devi**



Elgin E H



Sanchai M



ACHIEVEMENTS

ACHIEVEMENTS



Immanuel R

ACHIEVEMENTS



Akil P

ACHIEVEMENTS



Karthika M

ACHIEVEMENTS



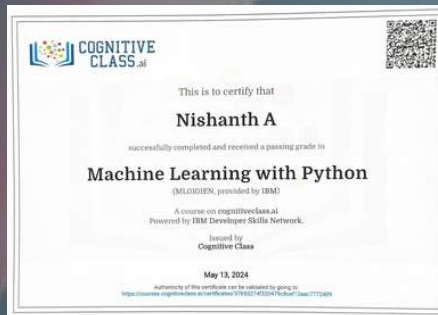
Elgin E H

ACHIEVEMENTS



Gopika V

ACHIEVEMENTS



Nishanth A

ACHIEVEMENTS



Supiesh S P



ROHINI
COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University,
NBA Accredited for BE (ECE, EEE, MECH) | Accredited by NAAC with A+ Grade
(AUTONOMOUS)



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND
MACHINE LEARNING

ZETOX

"IT IS NEVER TOO LATE TO BE WHAT YOU MIGHT
HAVE BEEN."

ABEL SAM THOMAS

ABHINAV S

ABILASH RV

ABIN K A

ADARSH S

ADITYA R

AJAY L

AJAY S

AJITHA PS

AKHILA ARAVINDAN

AKIL P

ALIMA BEEVIS

ARCHANA S

ARJUN BINOY

AROMALJK

ASHWIN IMMANUVEL MATHEW

AUDLIN SANJAY UN

BHAVYA SHREE T

ELGIN EH

GEO RASHIN P

GOPIKA V

GOWRI SHANKAR M

IMMANUEL R

IRFAN MUHAMMED TS

IYYAPPAN T

JESWIN CS

JOTHISH JP

KARTHIGADEVIA K

KARTHIKA M

LASIYA K

LIJO M V

MOHAMED RIYAZ KHAN I

MOHAMMED FIRAS MR

MUGILLA M ALIAS RAMIYA

MUTHUPRAJIN P

MUTHURAJ B

NAVIN RAJA H

NEELAVATHI S M

NIRMALRAJAJ

NISHANTH A

NIVETHA NA

PRAKASH G

RAJALEKSHMI E

ROOPIKA S SASI

RUSIKA P

SAMU SUNDAR M

SANCHAI M

SANJANA R

SHARUKESAN S

SHEEBA S

SHIJAI R

SIVA THARSHINI M

SRI ARUNA E

SUBIKSHA M

SUBIKSHA T

SUPIESH S P

THANGESHWARIAJ

THASNEEM FATIMA S

VANATHI P

VERGIN MEJILA A V

VINO SAKIR L

VINOSAN ST

SHIVA R

ABISHEK R

ZETOX

A large, glowing orange sun is the central focus, partially obscured by a ringed planet. The sun's light creates a bright, hazy atmosphere. The ringed planet, resembling Saturn, is positioned behind the sun, with its rings clearly visible. The entire scene is reflected on a dark, rippling surface of water at the bottom. The text 'ZENITH'25' is superimposed over the lower part of the sun.

ZENITH'25