



Vision of the Department

The vision of the CSE (Artificial Intelligence and Machine Learning) branch is to: Create experts capable of designing tomorrow's smart technologies, such as virtual assistants and disease detection systems, as well as building intelligent systems that learn and think, resulting in technology that solves real-world problems in healthcare, transportation, education, finance, and other areas...

Mission of the Department

- M1: To Providing a comprehensive curriculum that covers foundational concepts and advanced topics in AI and machine learning and emphasizes hands-on experience and project-based learning.
- M2: Encouraging and supporting cutting-edge research in AI and machine learning and fostering collaborations with industry and academia.
- M3: Providing opportunities for professional development, networking, and lifelong learning, and supporting our alumni in their continued success in the field of AI and machine learning.

Program Educational Objectives

- PEO1: Exhibit the knowledge of artificial intelligence and machine learning concepts to solve complex problems in diverse industries.
- PEO2: To implement necessary skills to design, develop, and implement intelligent systems that can analyze large datasets, learn from them, and make informed decisions.
- PEO3: Apply deep understanding of ethical considerations in the development and deployment of AI systems, including privacy, security, and fairness.

Program Specific Outcomes

- PSO1: **Engineering Fundamentals:** Ability to apply mathematical foundations, algorithms, and statistical models to analyze and solve complex problems in AI and machine learning.
- PSO2: **Industrial Skills Ability:** Ability to design and develop AI and machine learning models using various tools and programming languages such as Python, R, and TensorFlow., Ability to evaluate the performance of AI and machine learning models using various performance metrics and data visualization techniques.
- PSO3: **Ethical and Social Responsibility:** Understanding of the ethical, social, and legal issues associated with the development and deployment of AI and machine learning systems. Ability to work collaboratively in interdisciplinary teams to design and implement AI and machine learning solutions to real-world problems.

EDITORIAL BOARD

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 Ms. M. KEERTHANA, 23UP1A6635



CSE (Artificial Intelligence & Machine Learning)

The department of Artificial Intelligence & Machine Learning has been started in the year 2020 with an of 60 students.. They always strive to provide quality education to the students and work hard to develop the overall personality of the students. The laboratories of the department are well developed with advanced equipment to impart the required practical training to the students. The department also contain huge computer centre with 100 systems and with registered software to impart the computing knowledge to the students. The department maintains a strong links with the infrastructure industry, academic and research institutions at the national level.

The Department of Artificial Intelligence and Machine Learning at VMTW focuses on simulating human intelligence processes using machines, especially computer systems. AI involves developing algorithms for dynamically changing environments.



HOD'S MESSAGE

Dr.M .Vishnu Vardhana Rao,
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Welcome to the Department of CSE(Artificial Intelligence & Machine Learning)

The Department of CSE (Artificial Intelligence & Machine Learning) is committed to academic excellence, research innovation, and outcome-based education aligned with the vision and mission of the institution. In today's rapidly evolving technological landscape, Artificial Intelligence and Machine Learning play a pivotal role in driving digital transformation across industries and society. Our department strives to equip students with the knowledge, skills, and ethical values necessary to meet global challenges and contribute meaningfully to technological advancement.

The curriculum is designed in accordance with Outcome Based Education (OBE) principles, integrating strong foundations in Computer Science with emerging domains such as Data Science, Deep Learning, Computer Vision, Natural Language Processing, Robotics, and Intelligent Systems. Emphasis is placed on experiential learning through laboratory practices, project-based learning, internships, industry collaborations, research initiatives, and participation in technical competitions and innovation activities.

The department promotes a culture of continuous improvement through regular curriculum updates, stakeholder feedback, faculty development programs, research publications, funded projects, and industry interaction. Our dedicated faculty members mentor students not only in academics but also in developing problem-solving abilities, leadership qualities, teamwork, communication skills, and social responsibility.

We encourage students to actively participate in research, innovation, entrepreneurship, and community engagement activities. Our goal is to produce competent professionals who are industry-ready, globally competitive, and committed to lifelong learning and ethical practices.

Let us work together to foster a vibrant academic ecosystem that drives excellence, innovation, and sustainable development through Artificial Intelligence and Machine Learning.

FROM PIONEERS TO VISIONARIES: THE MINDS SHAPING ARTIFICIAL INTELLIGENCE

GREAT QUOTES ABOUT CSE (AI & ML)

Learn Today | Innovate Tomorrow | Lead the Future

"AI is the most transformative technology of our time. It will redefine every industry and create opportunities we can't yet imagine." – Jensen Huang CEO, NVIDIA	"Machine Learning is the core, and it will transform every product we build." – Sundar Pichai CEO, Google	"AI will impact every aspect of our lives. The challenge is to ensure it is used for good." – Fei-Fei Li AI Researcher, Stanford University
"AI is the new electricity." – Andrew Ng AI Pioneer & Co-founder, Coursera	"Machine Learning is a tool, not a magic wand." – Yann LeCun Chief AI Scientist, Meta	"Our mission is to solve intelligence and then use it to solve everything else." – Demis Hassabis CEO, Google DeepMind
"AI is far more powerful than humans in many ways." – Elon Musk CEO, Tesla & SpaceX	"The goal of AI and machine learning is to make better decisions." – Lex Fridman AI Researcher & Podcast Host	"I believe that at the end of the century the use of words and general educated opinion will have altered so much..." – Alan Turing Father of Computer Science & AI Pioneer

CODE. LEARN. THINK. INNOVATE. EMPOWERING INTELLIGENCE, SHAPING THE FUTURE.

ACTIVITIES



1. Healthcare

- Disease diagnosis using medical images
- Cancer detection and prediction
- Drug discovery and personalized treatment
- Virtual health assistants
- Patient monitoring and predictive healthcare

2. Space and Defence

- Satellite image analysis
- Autonomous systems
- Object detection
- Cybersecurity
- Mission planning

3. Education

- Personalized learning systems
- AI tutors and chatbots
- Automated evaluation and grading
- Student performance prediction

AI MEDICINE

AI-Powered Healthcare
Smarter Decisions, Better Outcomes

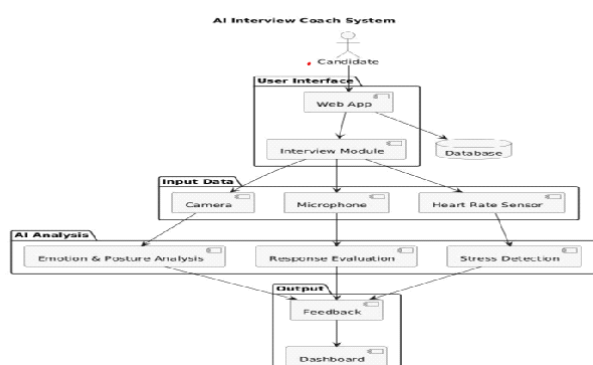
- Medical Image Analysis AI
- Diagnostics AI
- Risk Forecasting AI
- Assistant AI
- Speeding Up Work AI
- Automating Routine Tasks AI

1. Faculty Articles On AI Interview Coach System with IOT Stress and Posture Detection

By: Dr.M. Thejovathi

Traditional interview preparation methods, such as mock interviews and coaching sessions, primarily emphasize answer quality and presentation skills, often neglecting the candidate's internal mental state during the interview process. This project proposes an intelligent interview coaching system that continuously monitors stress variations and behavioral responses while a candidate participates in a simulated interview environment. By detecting patterns of nervousness, hesitation, and confidence loss, the system provides deeper insights into the impact of stress on interview performance. The proposed system leverages artificial intelligence and real-time analysis techniques to evaluate emotional and behavioral cues, enabling the identification of critical moments that affect candidate performance. Based on this analysis, the system delivers personalized and real-time feedback aimed at improving emotional regulation, response effectiveness, and overall interview readiness. This approach addresses a significant gap in placement preparation by integrating technical training with mental resilience development. It enhances self-awareness among candidates, helping them understand and manage stress patterns, thereby improving confidence and performance in real-world interview scenarios. **KEY WORDS:** Intelligent Interview Coaching System, Stress Detection, Behavioral Analysis, Artificial Intelligence, Real-time Feedback, Emotional Intelligence, Interview Preparation, Mental State Monitoring, Performance Analysis, Self-awareness

IV.SYSTEM ARCHITECTURE



2. Faculty Articles On An Efficient Hybrid Machine Learning methodology for predicting Medicine Overdose

By: Dr.M.Vishnu Vardhana Rao

Right now, the health sector is facing several difficulties when it comes to keeping medicine safe and properly managed. For example, medicine overdose is one of the issues that can lead to serious health risks or even death if the problem is not identified early. The Medicine Overdose Prediction (MOP) System uses data analysis and machine learning to look at a patient's information and figure out if there's a chance they might take more medicine than is safe. The authors have proposed using a combined method for predicting medicine overdoses. This paper utilizes the patient's data and medication dosage, applying various steps such as data preprocessing and training. The paper groups on the levels of medicine overdose into categories like safe, moderate, and high. This paper gives suitable suggestions based on the data that was predicted. The purpose of this study is to help patients and healthcare professionals manage medication dosages and prevent overdoses.

IV. ARCHITECTURE:

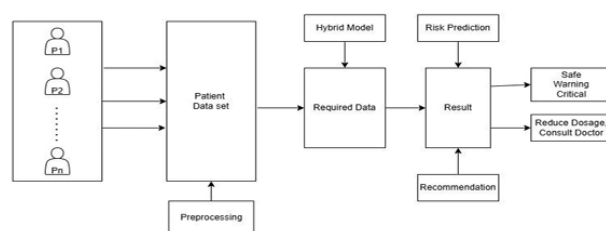
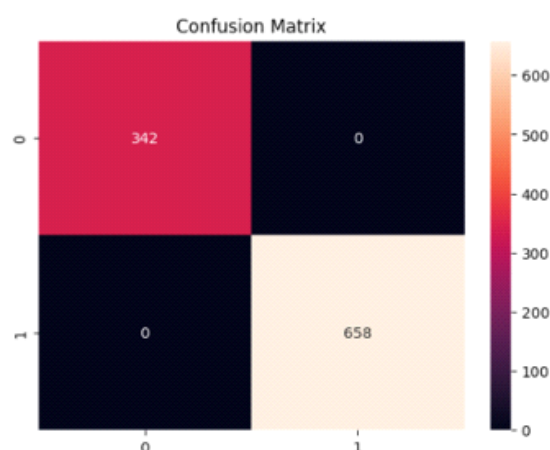


Figure-1: System Architecture



STUDENT ACHIEVEMENT IN NATIONAL:

"Empowering students to become future-ready innovators and responsible contributors to India's vision of Viksit Bharat."



B. Sri Laxmi (23UP1A6658)

P. Mayuri (23UP1A6696)

G. Sindhu (23UP1A6671)

G. Kaveri (23UP1A6674)

D. Bhavani (23UP1A6668)

M. Sai Akshita and P. Shivani participated in the prestigious Inter-State Youth Exchange Programme (ISYEP) 2025–26, organized by MY Bharat under the Ministry of Youth Affairs & Sports, Government of India. The programme was held at Thiruvananthapuram, Kerala, from 09–13 February 2026.

The five-day national programme brought together youth representatives from different states of India to promote national integration, cultural exchange, leadership development, social harmony, and environmental awareness. During the programme, the participant actively engaged in interactive sessions, cultural activities, field visits, and discussions on India's diverse heritage and social development.

The department congratulates M. Sai Akshita and P. Shivani for representing Telangana State (Ranga Reddy District) at this prestigious national-level event and wishes her continued success in future endeavors.



SAC ACTIVITIES

Articles:

1. Artificial Intelligence and Everyday Life

Artificial Intelligence has become a part of everyday life by making tasks easier, faster, and more convenient. In 2026, AI-powered applications are helping people communicate, shop, travel, and manage their daily activities. Smart assistants can answer questions, organize schedules, and provide useful recommendations based on user needs. AI is also improving healthcare by helping doctors analyze medical information and detect diseases earlier. In transportation, AI systems support safer driving and better traffic management. Many homes now use smart devices that learn user preferences and save energy. However, the growing use of AI also creates challenges related to privacy and security. People need to understand how AI works and use it responsibly. Students and professionals must develop skills to adapt to a technology-driven world. AI should be used to support human decisions rather than completely replace them. The combination of human creativity and artificial intelligence can lead to new ideas and solutions. Responsible innovation will ensure that AI benefits individuals and society. As technology continues to advance, AI will play a greater role in shaping the future.

24UP1A6616

TIPIRISHETTY CHARITHA

Articles:

2. Artificial Intelligence:

Opportunities and Challenges

Artificial Intelligence is one of the most important technological developments of the 21st century. It has created new opportunities in education, medicine, research, and business. AI systems can analyze large amounts of information, identify patterns, and help people make better decisions. Students use AI tools for learning, research, and improving their skills. Scientists use AI to discover new medicines and solve environmental problems. Businesses use AI to improve customer service and increase productivity. However, AI also brings challenges such as misinformation, job changes, and ethical concerns. Some people worry that excessive dependence on AI may reduce human creativity and personal interaction. To overcome these challenges, society must focus on responsible development and proper regulation of AI technologies.

24UP1A6610

CHALAMALLA LOHITHA

INNOVATION PROJECTS

Deep Learning-Based Driver Drowsiness detection and real time alert System

The Deep Learning-based Driver Drowsiness Detection and Real-Time Alert System aims to enhance road safety by continuously monitoring driver fatigue and issuing timely alerts to prevent accidents caused by drowsy driving. The system uses a real-time webcam feed to capture the driver's face and eye movements, where OpenCV and Haar Cascade classifiers detect facial features and extract the eye region. These eye images are then processed using a Convolutional Neural Network (CNN) built with TensorFlow and Keras to classify the eye state as open or closed. When both eyes remain closed for a predefined duration, an audible alert is triggered through Pygame to warn the driver. The model is lightweight, non intrusive, and cost-effective, offering a proactive safety mechanism compared to traditional reactive systems like airbags and seat belts. By integrating computer vision with deep learning, the system provides an efficient, real-time solution to reduce accidents caused by driver fatigue.

Srinidhi Marepally	22UP1A6644
Akshitha Jain	22UP1A6601
Varikuppala Akshaya	22UP1A6665

IV.SYSTEM ARCHITECTURE

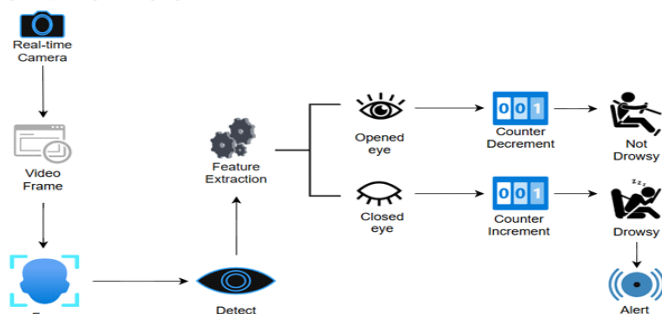


Fig: SYSTEM ARCHITECTURE

PLACEMENTS

Sl No	Roll No	Name	Company	Package
1	22UP1A6610	B.Sruthi Reddy	QUBITS	5 LPA
2	22UP1A6613	B.Tejaswini	QUBITS	5 LPA
3	22UP1A6614	Ch.Sai Sathwika	QUBITS	5 LPA
4	22UP1A6619	J.Pooja	ND MATRIX	8LPA

Program Outcomes (Adapted from NBA)

Engineering Graduates will be able to:

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

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

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

Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

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

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

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

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

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

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

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

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