



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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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.

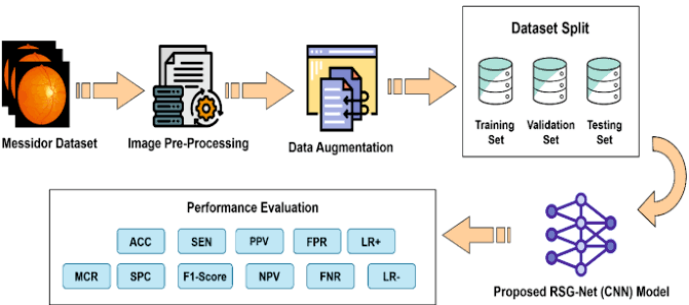
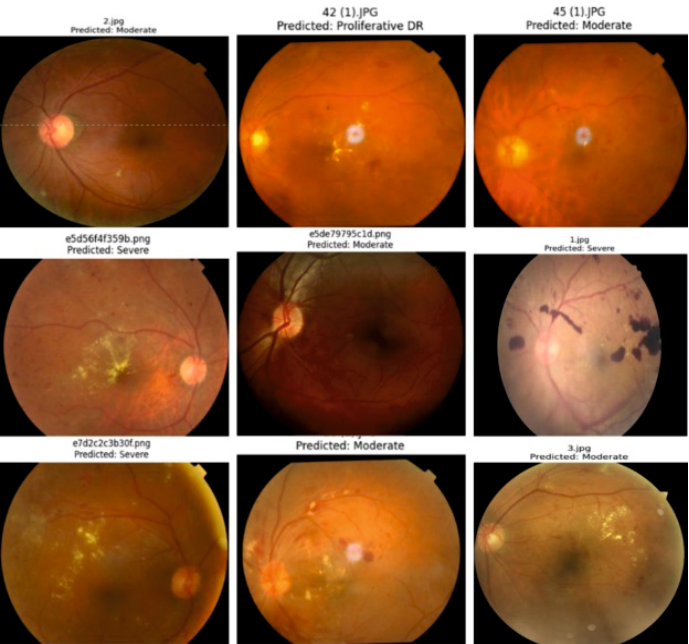
The Department of Artificial Intelligence and Machine Learning at VMTW focuses on simulating human intelligence processes using machines, especially computer systems. AI involves developing algorithms for dynamically changing environments.

1.Faculty Articles On Diabetic Retinopathy Prediction Using Deep Learning: Insights From CNN

By Dr. S. Ranga Swamy

Abstract:

Diabetic retinopathy (DR) is a serious diabetes-related eye disease that can lead to vision impairment and blindness if not detected and treated early. Advances in deep learning, particularly Convolutional Neural Networks (CNNs), have significantly improved the accuracy and efficiency of automated DR detection from retinal fundus images. CNN-based models automatically learn important visual features such as microaneurysms, hemorrhages, and exudates, reducing the need for manual feature extraction. This study explores the application of CNN architectures for diabetic retinopathy prediction, highlighting their effectiveness in disease classification, early diagnosis, and clinical decision support. It also discusses commonly used datasets, preprocessing techniques, model performance, and current challenges such as class imbalance, image quality, and model interpretability. The findings demonstrate that CNN-based deep learning systems have strong potential to assist ophthalmologists by enabling faster, more accurate, and scalable screening, ultimately improving patient outcomes and reducing the burden of diabetic eye disease.

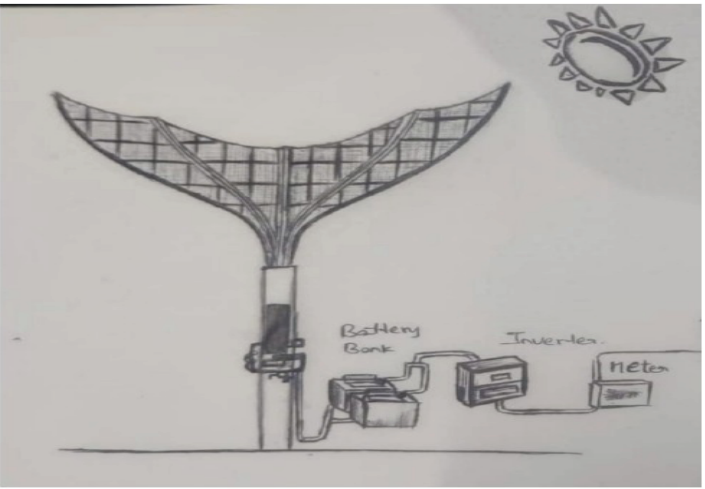


2.Faculty Prototype: Solar Gadgeteers

By Dr. M. Vishnu Vardhana Rao

Prototype Description:

Solar Gadgeteers is an innovative renewable energy prototype focused on designing and developing smart solar-powered gadgets that use sunlight as a sustainable energy source for daily applications. The system promotes eco-friendly technology by integrating solar panels with portable or household devices such as chargers, lighting systems, smart bags, fans, and emergency tools.



2.Faculty Prototype: Aero Glide-X

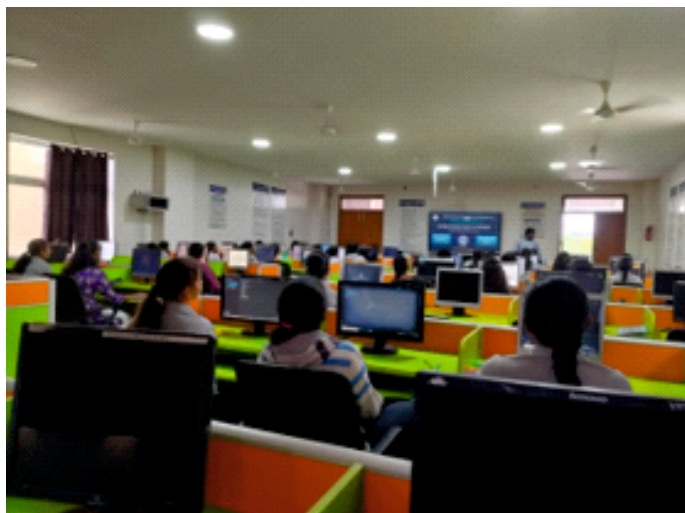
By Dr. M. Vishnu Vardhana Rao

Prototype Description:

Aero Glide-X is an advanced smart mobility and aerospace-inspired prototype designed to deliver efficient, high-speed, and intelligent transportation through aerodynamic engineering and modern automation technologies. It can represent a next-generation drone, autonomous flying vehicle, or smart gliding transport system focused on speed, safety, and energy efficiency.



DEPARTMENT EVENTS



The Department of CSE (AI & ML) successfully organized a Two-Day Workshop on "Python for Data Science" to enhance students' programming and data analytics skills. The workshop was conducted by Dr. P. Ram Kumar, Associate Professor, who provided hands-on training on Python programming, data analysis, and its applications in data science. Students actively participated in practical sessions and gained valuable insights into Python libraries and real-world data science techniques.

KIYE (15-10-2025)



SAC ACTIVITIES

1. Student Articles On AI And Human Intelligence

By M.S. MANASVI, 24UP1A66A8

For years, people compared human intelligence with artificial intelligence. Which one was better? The question slowly changed. Humans possess emotions, imagination, empathy, and moral judgment. AI possesses speed, memory, and the ability to process huge amounts of data. Instead of competing, the two forms of intelligence began working together. The greatest achievements may come not from humans or AI alone, but from their collaboration.

2. Student Articles On AI And Data

Data was once stored in files and databases, waiting for humans to analyze it. As the amount of data increased, this became difficult. AI changed the situation. It could identify patterns, make predictions, and discover useful insights. But data alone was not enough. The quality of the decision depended on the quality of the data. AI taught organizations an important lesson: intelligent decisions begin with responsible data.

STUDENT ACHIEVEMENTS

Students Participate in Viksit Bharat Young Leaders Dialogue 2026

Two students from the Department of CSE (AI & ML) proudly participated in the Viksit Bharat Young Leaders Dialogue 2026 – Viksit Bharat Challenge (State Championship) held at Vivekananda Government Degree College, Vidya Nagar, Hyderabad. Their active participation in this prestigious event reflects the department's commitment to nurturing leadership, innovation, and national development among students. The participants were awarded Participation Certificates in recognition of their enthusiasm and contribute.



PLACEMENTS



VIGNAN'S
INSTITUTE OF MANAGEMENT AND
TECHNOLOGY FOR WOMEN
Kondapur (V), Ghatkesar (M), Medchal Dist - 501301

*Building Careers
Inspiring Futures*

PLACEMENTS 2025

Our Students, Our Pride!

Heartfelt Congratulations to our talented students
for their successful placements.



Sl No	Roll No	Name	Company	Package
1	22UP1A6646	M.Smruthi	GLWLOGICS TECHNOLOGY SOLUTIONS	7 LPA
2	22UP1A6647	M.Soulya	GLWLOGICS TECHNOLOGY SOLUTIONS	7 LPA
3	22UP1A6653	P.Vyshnavi	GLWLOGICS TECHNOLOGY SOLUTIONS	7 LPA
4	22UP1A6659	S.Roopa Chandana	GLWLOGICS TECHNOLOGY SOLUTIONS	7 LPA

Your hard work, dedication and
perseverance have paved the way
for a bright future!
Wishing you all the best for
your future endeavors!

DEPARTMENT EVENTS AND ACTIVITIES

One-Day Poster Presentation on "Recent Trends in Prajwalan"



The rapid growth of Internet of Things (IoT) devices has introduced significant security challenges, including unauthorized access, data breaches, and identity verification issues. Due to the limited computational power, memory, and energy resources of IoT devices, traditional security mechanisms are often unsuitable for IoT environments. The ECC-Hash Authentication Technique for Internet of Things Devices proposes an efficient and lightweight security framework that combines Elliptic Curve Cryptography (ECC) and hash functions to provide secure authentication and data protection. The proposed technique uses ECC-based cryptographic algorithms to generate secure keys and establish communication between IoT devices while minimizing computational and energy requirements. Hash functions are integrated to ensure data integrity, prevent message tampering, and verify the authenticity of transmitted information.

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.