



Vision of the Department

To inspire and educate female students in Computer Science and Engineering to become skilled, ethical, and innovative professionals prepared for future technologies and challenges.

Mission of the Department

- M1: To provide strong foundational and advanced knowledge in core areas of Computer Science and Engineering, enabling students to design, analyse, and solve engineering problems using modern Computing tools.
- M2: To promote research skills, innovation, entrepreneurship and lifelong learning by encouraging students to participate in research, development, and interdisciplinary activities in emerging technologies.
- M3: To inculcate professional ethics, social responsibility, and sustainable practices, enabling graduates to contribute positively to society.

Program Educational Objectives

- PEO1: To acquire logical and analytical skills in core areas of Computer Science & Information Technology.
- PEO2: To adapt new technologies for the changing needs of IT industry through self-study, graduate work and professional development.
- PEO3: To demonstrate professional and ethical attitude, soft skills, team spirit, leadership skills and execute assignments to the perfection.

Program Specific Outcomes

- PSO1: **Software Development:** Ability to grasp the software development life cycle of software systems and possess competent skill and knowledge of software design process.
- PSO2: **Industrial Skills Ability:** Ability to interpret fundamental concepts and methodology of computer systems so that students can understand the functionality of hardware and software aspects of computer systems.
- PSO3: **Ethical and Social Responsibility:** Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues.

EDITORIAL BOARD

Dr. B Phijik, HOD (CSE)

Mrs. V. Suzan Shalini, Assistant Professor, BS&H.

Mrs. B. Mamatha, Assistant Professor, CSE.

Ms. G S Yamini Devi CSE (Student)

Ms. Ojasvi Pattanaik CSE(Student)

Ms. K S Preethi, CSE(Student)

Ms. Rachel Vinitha, CSE(Student)

COMPUTER SCIENCE AND ENGINEERING



Established in 2008, the CSE Department at VMTW has grown from an intake of 90 to 240 students, reflecting its commitment to excellence. The department earned NBA accreditation in 2019 and reaccreditation in 2022, ensuring high academic standards.

With experienced and research-driven faculty, the department promotes innovation through Centres of Excellence in IoT and AI & ML and collaborations with MSME, ALEAP, and TASK. Active associations with ISTE, CSI, and IETE enrich student learning through workshops and seminars.

Boasting 90% placements in leading companies like Amazon, Flipkart, Accenture, and Cognizant, and a highest package of ₹ 20 LPA, the department stands as a hub of innovation, research, and success.



HOD'S MESSAGE

Dr. Phijik Battula,
Associate Professor &
HoD, DEPARTMENT OF
COMPUTER SCIENCE AND
ENGINEERING

Dr. Phijik Battula brings over 20 years of academic and research experience to his role as Associate Professor and Head of the Department of Computer Science & Engineering at Vignan's Institute of Management and Technology for Women (VMTW), Hyderabad. He earned his Ph.D. in Computer Science from Osmania University, Hyderabad in 2023. He holds an M.Tech. in Computer Science and Engineering from Jawaharlal Nehru Technological University Hyderabad (JNTUH). Dr. Battula's expertise spans Computer Networks, Software Engineering, Operating Systems, Machine Learning, and Blockchain Technologies. He has made significant scholarly contributions, including: 3 national patents, 1 authored book, 10 journal publications, including (1 in SCIE-indexed journal, 4 in SCOPUS-indexed journals, 5 in UGC-approved journals, 2 international conference papers). He also served as an Academic Counsellor with the Indra Gandhi National Open University (IGNOU), Regional Services Division, Maidan Garhi, New Delhi, through Aurora Degree College Study Center (Code: 0111), Hyderabad. A dedicated mentor and educator, Dr. Battula has guided over 100 B.Tech graduates from VIGNAN's Group Institutions, Hyderabad. He is an active member of several professional organizations, Life Member, Indian Society for Technical Education (ISTE) – LM-137313, Life Member, International Association of Engineers (IAENG) – Member No: 277087, Life Member, Society of Digital Information and Wireless Communication (SDIWC) – ID: 30616.

Events at Department:

Christmas celebration:



FACULTY ARTICLE ON THE ERA OF SMART MANUFACTURING

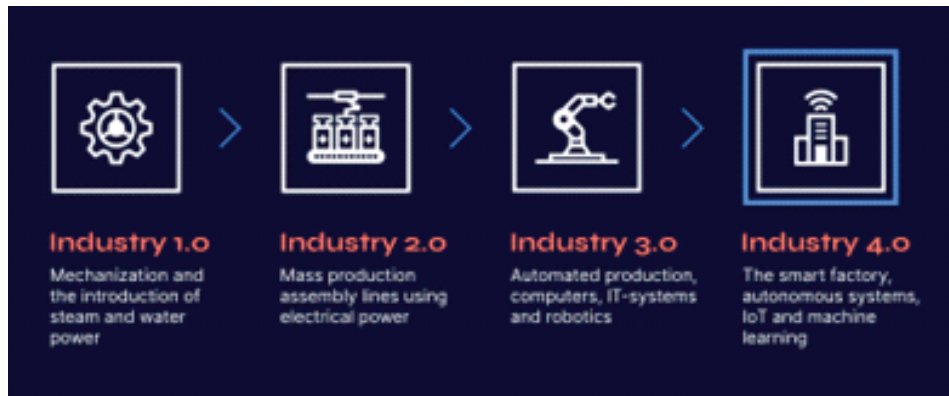
By, G Ramya, Assistant Professor (CSE)

Generative AI – Redefining Creativity and Innovation

Industry 4.0 – The Era of Smart Manufacturing



Industry 4.0 marks the fourth industrial revolution, where advanced technologies like Artificial Intelligence, the Internet of Things (IoT), Robotics, Cloud Computing, and Big Data are transforming traditional industries into smart, connected systems. In this new era, machines communicate with each other, analyze data in real time, and make intelligent decisions with minimal human intervention. This leads to greater efficiency, customization, and sustainability in manufacturing and production.



Industry 4.0 bridges the gap between the physical and digital worlds, creating opportunities for engineers to build smarter factories and a more innovative future.

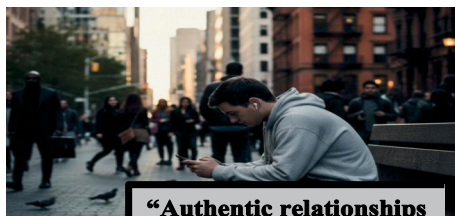
FACULTY ACHIEVEMENTS

S.NO.	NAME OF THE FACULTY	EVENT TYPE	DATE OF EVENT	MODE OF ATTENDING	PLACE
1.	Mr. M Krishna Nayak	FDP	25.10.2023 to 15.11.2023	Online	Excel R
2.	Mrs. B Mamatha	FDP	25.10.2023 to 15.11.2023	Online	Excel R
3.	Samreen Begum	FDP	25.10.2023 to 15.11.2023	Online	Excel R

Student article on Loneliness in the Age of Hyper connection

By, Ojasvi P IV year (CSE)

Loneliness in the Age of Hyper connection



"Authentic relationships require presence—both online and in real life."

In today's digital world, young people appear constantly connected — chatting, posting, and scrolling through endless feeds. Yet, studies show that over 55% of urban youth feel lonely, despite being surrounded by digital interactions. Social media often leads to comparison, anxiety, and emotional exhaustion, leaving users feeling disconnected even in crowded cities.

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appear constantly connected — chatting, posting, and scrolling through endless feeds. Yet, studies show that over 55% of urban youth feel lonely, despite being surrounded by digital interactions. Social media often leads to comparison, anxiety, and emotional exhaustion, leaving users feeling disconnected even in crowded cities.



The widespread use of digital platforms has significantly changed the way individuals interact, but it has also led to increasing concerns about social isolation and emotional well-being. One emerging phenomenon is "digital

loneliness," where online contact doesn't translate into real emotional connection. To counter this, many schools and colleges are promoting offline meetups, wellness events, and digital detox programs to help students reconnect meaningfully.

Building genuine relationships and spending time away from screens is now seen as essential for better mental health and social well-being.

STUDENTS ATTEMPTED COMPETITIVE EXAMS:

Sl No	Roll No	Name	Exam Reg No	Name of the Exam
1	20UPIA0532	KATHI KEERTHI	527681	IELTS
2	20UPIA0554	VANCHA SATHVIKA	3985 4022 4963 0481	TOEFL
3	20UPIA0554	VANCHA SATHVIKA	208948 9	GRE

Workshop conducted:

The Department of CSE organized a hands-on workshop on Power BI, aimed at enhancing students' data visualization and analytical skills. The session introduced participants to the fundamentals of business intelligence, data modeling, and dashboard creation using real-time datasets.

The resource person Mr. Arjun Modi, guided students through interactive exercises, showcasing how Power BI can transform raw data into meaningful insights. The workshop provided valuable exposure to data-driven decision-making tools widely used in industry.

Overall, it was an enriching experience that equipped participants with practical knowledge and inspired them to explore the dynamic field of data analytics.





CAMPUS RECRUITMENT

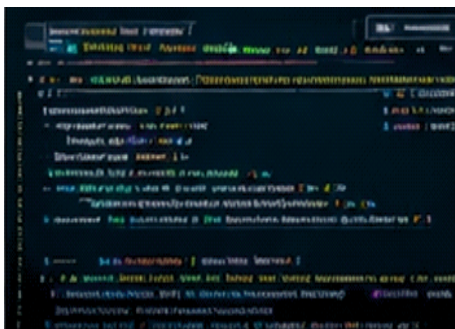
S.NO.	COMPANY'S NAME	OFFERS	PACKAGE	ROLE
1.	Savantis	27	3.5 LPA	Trainee analyst
2.	Jio	2	5 LPA	Trainee engineer
3.	Turning minds.AI	16	6 LPA	Data Scientist trainee
4.	Inmovidu Technologies	42	7 LPA	Business Dvelopment

STUDENT PROJECTS

Website Blocker Using Python:

Kanuru Bhavani (20UP1A0528)

In the digital era, excessive access to social media and entertainment websites often leads to reduced productivity and poor time management. Website blockers help individuals maintain focus by restricting access to distracting websites during work or study hours. Python provides a simple and effective way to implement such productivity tools.



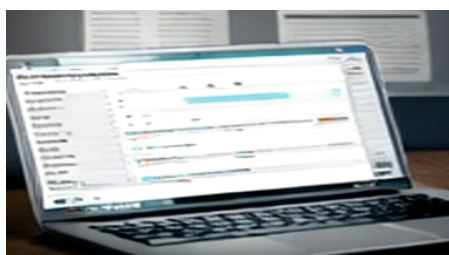
Existing System:

Existing approaches to controlling website usage depend on user self-discipline or third-party applications. Many of these applications are either



Proposed System:

The proposed system uses Python to automatically block specified websites during predefined time intervals by modifying system configuration files. Users can customize blocked websites and time schedules according to their productivity needs.



Methodologies Used:

The methodology includes Python scripting to access and modify the system host file, implementing time-

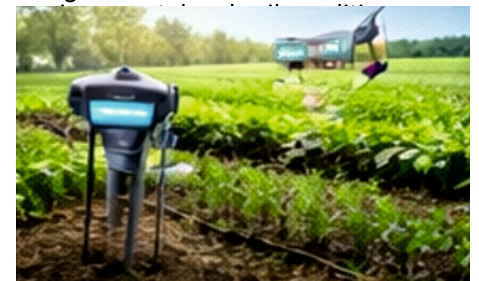
based logic for blocking and unblocking websites, and scheduling the script to run automatically during working hours. This system improves productivity and effective time management through automation.



Smart Irrigation System:

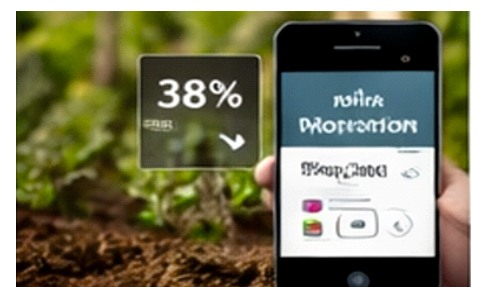
Marupaka Vaishnavi (20UP1A0534)

Water scarcity is a major challenge in agriculture, making efficient water management essential for sustainable farming. Smart irrigation systems help optimize water usage by automating irrigation based on real-time



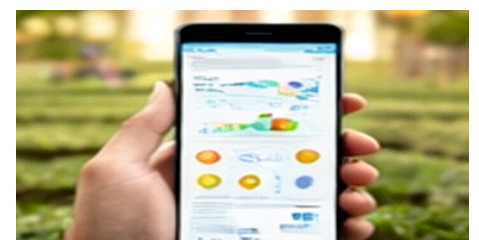
Existing System:

Traditional irrigation systems rely on fixed watering schedules, which often result in over-irrigation or under-irrigation. These methods waste water and may negatively affect crop growth and soil health.



Proposed System:

The proposed system uses soil moisture sensors and environmental sensors to monitor field conditions. Based on sensor data, irrigation is automatically controlled to supply water only when required.



Methodologies Used:

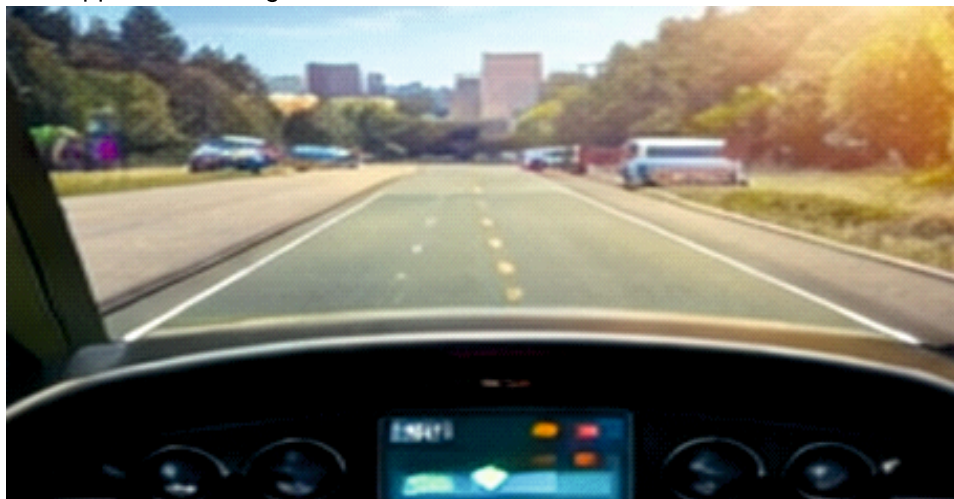
The methodology involves integrating soil moisture sensors with a microcontroller, collecting real-time data, applying threshold-based decision logic, and controlling water flow using automated valves or pumps. This system conserves water, reduces manual effort, and improves crop productivity.



Lane Detection Using OpenCV:

K Lasya Priya (20UP1A0576)

Lane detection is a critical component of advanced driver assistance systems and autonomous vehicles. Accurate detection of road lanes helps prevent accidents and supports safe navigation.



Existing System:

Conventional lane monitoring depends on human observation, which is unreliable and unsuitable for real-time driving environments. Manual systems cannot adapt quickly to changing road conditions.



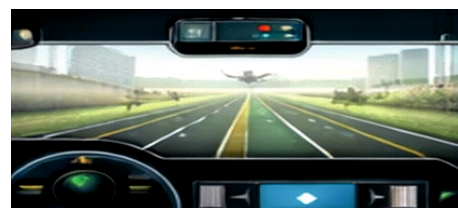
Proposed System:

The proposed system uses OpenCV-based image processing techniques to detect lane markings from road images and video streams. It enables real-time lane identification and tracking.



Methodologies Used:

The methodology includes image acquisition, grayscale conversion, noise reduction, edge detection, region of interest selection, and lane line detection using computer vision algorithms. This system enhances road safety and supports intelligent transportation systems.



Crop Yield Prediction Using ML:

C. Navya (20UP1A05B8)

Accurate crop yield prediction is essential for effective agricultural planning and food security. Machine learning models analyze historical and real-time data to forecast crop yield with higher accuracy.



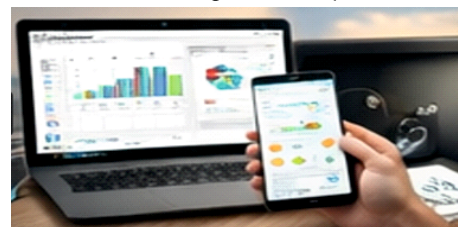
Existing System:

Traditional yield prediction methods rely on farmer experience and historical trends, which may not account for changing climatic conditions and soil variability.



Proposed System:

The proposed system uses machine learning algorithms to predict crop yield based on soil properties, weather conditions, and agricultural practices.



Methodologies Used:

The methodology includes data collection, preprocessing, feature selection, training machine learning models, and evaluating prediction accuracy. This system supports data-driven decision-making and improves agricultural productivity.



Android TTS OCR Conversation System for People with Visual Disability:

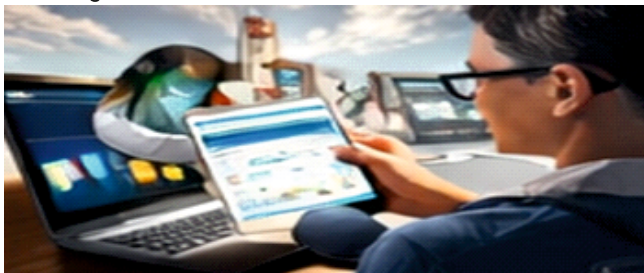
MD Seema (20UP1A05D6)

Visually impaired individuals face significant challenges in accessing printed and digital text. Assistive technologies play a vital role in improving accessibility and independence.



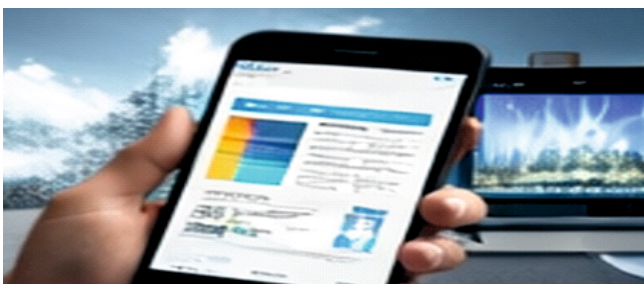
Existing System:

Traditional reading aids such as Braille books and screen readers have limitations in accessing real-world printed text and images.



Proposed System:

The proposed Android application captures images using a smartphone camera, extracts text using Optical Character Recognition (OCR), and converts it into speech using Text-to-Speech (TTS) technology.



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 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.

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 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 lifelong learning in the broadest context of technological change.